7th Annual ARRL SNJ Section Convention

Presented By The

Gloucester County Amateur Radio Club

W2MMD

Celebrating Our 66th Year

HamFest.W2MMD.org

Open To The Public At 8:00 AM : *Rain or Shine*

47th Annual HamFest : Sunday, September 7, 2025

ADMISSION : $10.00

Non-Ham Spouses and Kids FREE

Vendors and Tailgaters of new and used radio and electronic equipment

Gates open at 6:00 am for vendors and tailgaters.

Tailgating rules (open grassy areas only) :

- **$10.00 per vehicle space, up to 10 feet**
- **No reserving / holding spaces for tailgaters not present**
- **First Come, First Serve**

Table rules (covered pavilions only) :

- **$15.00 per table (yours), or table space up to 8 feet**
- **Tailgating under pavilions will fall under "Table Rules"**

Some pavilion spaces have electric • Space price does not include admission

Programs will start at 9:00 am in the Classroom Building

- **9:00 am : Your Antenna Performance In 3D : Jim Wright N2GXJ**
- **10:00 am : ARRL Update : Robert Famiglio K3RF : ARRL Atlantic Division Director**
- **11:00 am : STEM, Kids, & Ham Radio : Angela Metzger KE2DRJ**

ARRL VEC License Testing : 8:00 am to 10:00 am

- **Exam Testing In The W2MMD Clubhouse • Exam Fee : $15.00**
- **All candidates must register at : https://veteam.w2mmd.org**

Local Hotels :

- **Motel Six, 133 Delsea Drive South, Glassboro, 856-881-1000**
- **Courtyard By Marriott, 325 Rowan Blvd, Glassboro, 856-881-0048**

HamFest Help Desk : 146.460 MHz Simplex

Talk-In Station :
147.180 (131.8) / EchoLink W2MMD-R

Grand Prize : $200.00
Many More Prizes! Door Prize Drawings Throughout The Day!
Must Be Present To Win!

Food And Beverages Catered By

BSA Troop 9
West Deptford, NJ
Facebook Page :
http://bit.ly/4o41dFW

Additional Activities :

- **Special Event Station : W2M**
- **Propagation Permitting**
- **Balloon Launch :**
- **Weather Permitting**
- **American Red Cross Communications Trailer**

2025-07-21

Gloucester County 4-H Fairgrounds • HamFest.W2MMD.org
275 Bridgeton Pike (Route 77) • Mullica Hill, NJ 08062 • GPS : 39.715572°, -75.211944°

CrossTalk

September 2025 66 Years Of Service To Amateur Radio & Our Community Issue 66 : 09

2025 Club Officers

President :	**Jonathan Pearce WB2MNF**
Vice President :	**Ronald Block NR2B**
Treasurer :	**John O'Connell K2QA**
Recording Secretary :	**John Zaruba Jr K2ZA**
Corresponding Secretary :	**Michael Resnick N2WOQ**

Trustees - 4 Year Term

Charles Lanard KD2EIB	**(2022-2025)**
Sheldon Parker K2MEN	**(2023-2026)**
Len Rust W2LJR	**(2024-2027)**
Earl Moore KC2NCH	**(2025-2028)**

Directors - 3 Year Term

Chris Prioli AD2CS	**(2023-2025)**	**Bill Price NJ2S**	**(2024-2026)**
James Wright N2GXJ	**(2023-2025)**	**Jeffrey Garth WB2ZBN**	**(2025-2027)**
Al Arrison KB2AYU	**(2024-2026)**	**Frank Romeo N3PUU**	**(2025-2027)**

General Membership Meeting
Wednesday, September 03, 2025 @ 1900 Hours
In-Person & ZOOM : 914 7364 1808, 843147

47th Annual HamFest
7th Annual SNJ Section Convention
Sunday, September 07, 2025

License Testing Session
Thursday, September 11, 2025 @ 1900 Hours
W2MMD Clubhouse

Tech Saturday Forum
Saturday, September 13, 2025 @ 0900 Hours
W2MMD Clubhouse

Fox Hunt 34
Sunday, September 14, 2025 @ 1300 Hours

Board of Directors Meeting
Wednesday, September 17, 2025 @ 1900 Hours
W2MMD Clubhouse

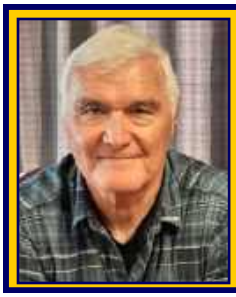
Tuesday AfterNoon 2M Net @ 1200 Hours

Thursday Night 2M Net @ 2000 Hours

Monday & Thursday Night 40M Net @ 1930 Hours
7.170 MHz (+/- 5 or 10 kHz)

Inside This Issue…

President's Letter..... Page 3
Heartsaver® CPR & First Aid Classes..... Page 5
Welcome New Members..... Page 6
Fox Hunt 34 - September 14, 2025..... Page 6
Virtual Traffic Handling Training..... Page 6
September 3rd General Membership Meeting Page 7
September 13th Tech Saturday Forum..... Page 8
Monthly VE Session Summary..... Page 9
DA's & DIT's..... Page 11
Regional Hamfest & Events..... Page 12
New Jersey QSO Party..... Page 13
Route 66 Special Operating Event..... Page 14
The Education Connection..... Page 15
At The Repair Bench..... Page 19
ARES SNJ Section Update..... Page 23
CW & The Art of Conversation..... Page 29
Element 4 Question Quiz..... Page 30
From The Help Desk..... Page 35
General Membership Meeting Minutes.... Page 39
Board of Directors Meeting Minutes..... Page 41
Ham Exam Preparation Class Session X. Page 43
Tech Saturday TIDRADIO TD-H3 HT.... Page 47
DXCC Honor Roll..... Page 52
September 2025 Birthdays..... Page 54
NG3K Announced DX Operations..... Page 57
September 2025 Contest Calendar..... Page 58
Last Page Calendar..... Page 60



President's Letter
Jon Pearce WB2MNF

September 2025

With summer over, vacation time has ended, and Eagles football starting, our Club fall activities are coming together. We have a full schedule of General Membership presentations, Tech Saturday Forum events, contests and special events like fox hunts planned for the upcoming months.

September 13, 2025 Tech Saturday Forum - "Setup of the 915 MHz Meshtastic Radios"
I will give a short presentation on the setup and use of the unlicensed 915 MHz Meshtastic radios that several members have starting experimenting with because of the large user base in and around Philadelphia that creates a far-reaching network. These radios are set up quite differently from the ham configurations that were used in the 433 MHz radios, using "channels" instead of user-assigned frequencies and allowing encryption. There's more to be learned about their configuration and use than can be assembled and presented at that session but we should be able to get new users started with these radios. ***See more information on Page 8.***

Note that Tech Saturday this month is September 13th, NOT September 6th to avoid the Hamfest weekend.

HamFest - Sunday, September 7. 2025
Hopefully every Club member has a large notation on their calendars for Sunday September 7th on which is inscribed in big letters ***"Go to the HamFest!"***. Through the diligent efforts of HamFest coordinator **Ron Block NR2B** and the great response from the membership most volunteer spots are filled, with a large turnout of dedicated members stepping up to make this event a success. The HamFest also provides an opportunity to get together with a large group of hams from various areas, sit through some interesting technical and organizational presentations in the seminars, and perhaps purchase some valuable vintage amateur radio equipment! Weather for the HamFest is always great (!) so we expect to have a large turnout of members for this event. Additionally, we're planning a WSPR-equipped balloon launch (weather permitting) between 8 and 9 AM from the Clubhouse that we can track at the HamFest location. License testing will be available at the Clubhouse in the morning for those looking to upgrade or get started.

Fox Hunt 34 - Sunday, September 14, 2025
Mark your calendars for our Fall Fox Hunt on Sunday, September 14 starting at 1 PM - a fun, family-friendly event that's perfect for sharpening your direction-finding skills! **Jim Wright N2GXJ** will be running the show this time, stepping in as "The Fox." Participants should check in on the 147.180 repeater by 1 PM for brief instructions, after which the Club's foxhunt transmitter will be activated somewhere in Gloucester County. Jim will send further details via email on the Club's reflector by Saturday, September 13. The first to locate it earns the honor of hiding it next time, while finders step aside to let others continue the chase. If anyone hasn't tracked it down within the hour, we'll guide them in for a group photo and some storytelling afterward. If this is your first time hunting and you want to team up with an experienced hunter let me know **(president@w2mmd.org)** and we'll connect you with one of the pro's. It's always a blast - hope to see you out there!

President's Letter - Continued on page 4

President's Letter - Continued from page 3

CPR Courses - Sunday, October 5 and October 12, 2025
We're pleased that Club member **Josh Boylan KE2FSC** will be holding CPR courses for Club members and a family member, with registration now open. These sessions, covering **Heartsaver® CPR and First Aid**, will be offered in the mornings and afternoons of October 5th and 12th. It's a valuable opportunity to build emergency preparedness skills that align with our ham radio commitment to public service. For cancellations or changes, contact Jon Pearce at ***president@w2mmd.org*** by September 30th. **See more information on Page 5.**

Sign up using the form at : **https://registration.w2mmd.org/wpregp/gcarc-heartsaver-cpr-and-first-aid-class**

EME Contest
As noted last month, the ARRL EME Contest on October 11-12 and November 8-9 is on the horizon. The power issue with the 1296 MHz amplifier appears to have been resolved, significantly increasing our capabilities over our last EME session at which we still managed a successful 500,000 mile EME QSO, bouncing the signal off of the surface of the moon,. We look forward to putting our new dish, rotator, controller and radio gear to the test and inviting members to participate. More information will be forthcoming closer to the event dates.

STEM Camp Completion
Our STEM Camp wrapped up with four enthusiastic young middle school students who gained hands-on experience operating the HF station, building a 20-meter dipole, constructing a tape measure Yagi, programming and operating TIDRADIO TD-H3 HTs, and working with electronic component kits. These activities sparked great interest and engagement. Unfortunately, none passed the Technician class exam, though one came within just two points - a strong effort for their age group. This outcome is disappointing but not entirely unexpected given the participants' youth and the material's complexity. Over the next few weeks, we'll be evaluating our approach to better prepare these students for the test in future sessions, perhaps with adjusted pacing or additional resources tailored to younger learners.

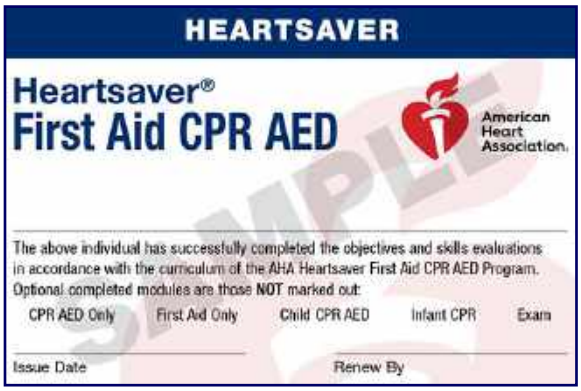
Volunteer Examiner Team
Our Volunteer Examiner team led by **Chris Prioli AD2CS** continues to be one of the most active in the region, helping many new hams get licensed and upgraded, with many joining the Club as a result. Check out their dedicated website at : **https://veteam.w2mmd.org** for all the resources you need to pursue or advance your amateur radio license.

Fall is a great time to get back involved in Club projects after a quiet summer, and with numerous projects awaiting there's always room for others to get involved. Come out to the Clubhouse any Saturday morning to see what's happening and where you can get involved.

73 de Jon Pearce, WB2MNF

GCARC Heartsaver® CPR and First Aid Classes

GCARC will host CPR and First Aid training sessions at the W2MMD Clubhouse. There will be four sessions, with each one limited to 12 participants.


HEARTSAVER
Heartsaver®
First Aid CPR AED
American Heart Association.
SAMPLE
The above individual has successfully completed the objectives and skills evaluations in accordance with the curriculum of the AHA Heartsaver First Aid CPR AED Program.
Optional completed modules are those NOT marked out:
CPR AED Only
First Aid Only
Child CPR AED
Infant CPR
Exam
Issue Date
Renew By

The available sessions are :

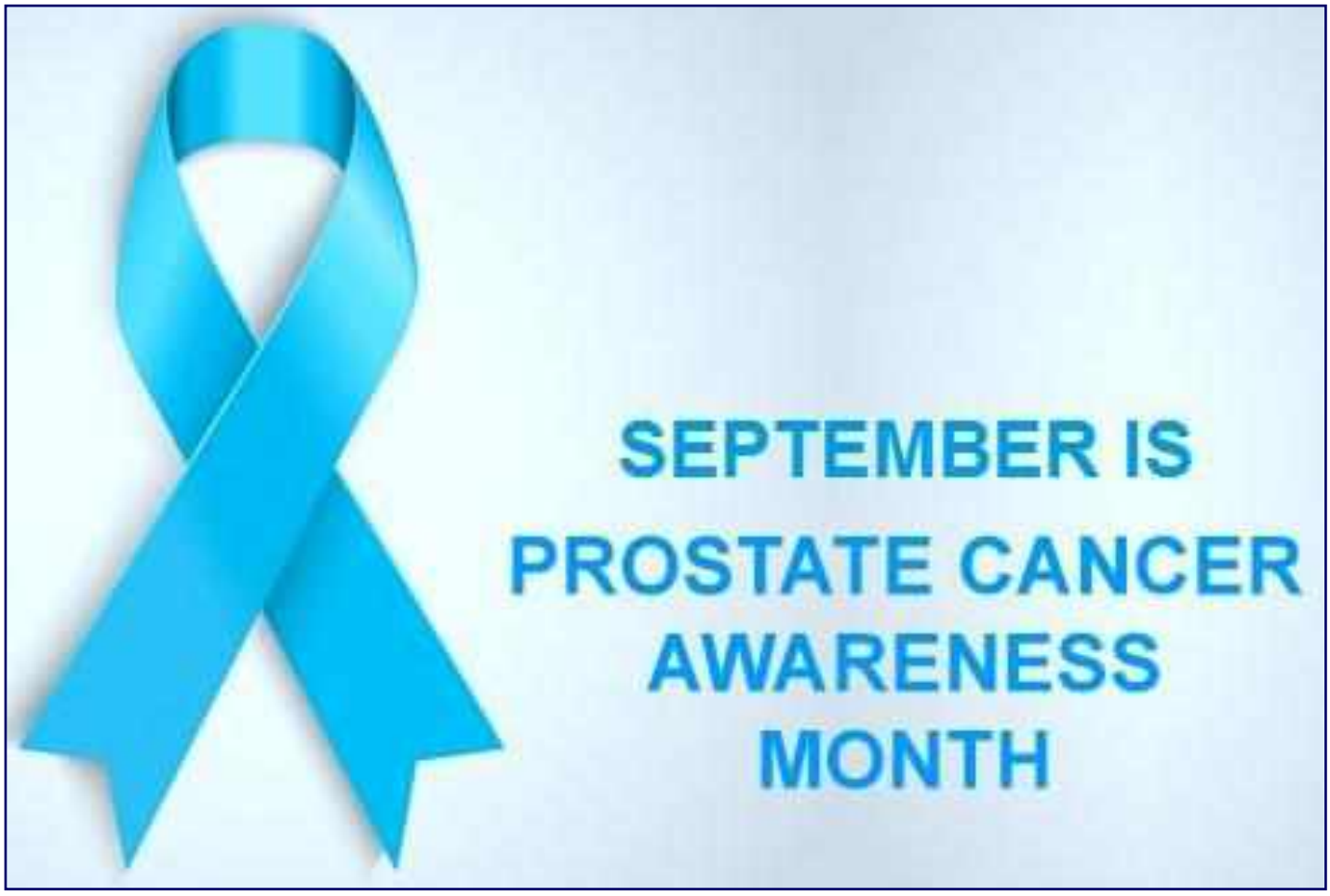
- **Sunday, October 5, 2025 : 9AM - Noon**
- **Sunday, October 5, 2025 : 1PM - 4PM**
- **Sunday, October 12, 2025 : 9AM - Noon**
- **Sunday, October 12, 2025 : 1PM - 4PM**

The course will be taught by Club member **Josh Boylan KE2FSC**, an EMT trainer and paramedic. The sessions will cover the AHA Heartsaver® CPR course and first aid topics relevant to Clubhouse activities. Upon completion of the course, students will be issued an AHA Heartsaver® CPR AED certification.

Josh has donated a first aid kit tailored to common injuries at the Clubhouse, which will be demonstrated for use. The training is available to Club members and one additional family member.

For cancellations or changes, contact Jon Pearce at ***president@w2mmd.org*** by September 30th.

To register for classes, go to :
https://registration.w2mmd.org/wpregp/gcarc-heartsaver-cpr-and-first-aid-class



Welcome New Club Members :

Matthew Bogacki KE2GNY, a Technician Class who lives in Mullica Hill, NJ.
Michael Cutrera N5MIT, an Amateur Extra Class who lives in Doylestown, PA.
Marian Yanka KE2GOL, Student Member, a Technician Class who lives in Moorestown, NJ.

We are glad to have you as a member of the Club and hope to see you regularly at Club meetings, events, and activities. Hope to see you at :

- **The September 3rd General Membership Meeting, either in-person or on ZOOM**
- **The September 13th Tech Saturday Forum @ the W2MMD Clubhouse**
- **The Board of Directors Meeting on September 17th**
- **The Dinner at the Clubhouse on September 24th**

We also hope to "SEE" you on the "AIR" on the following nets :

- **Sunday Night Skywarn 2 Meter Net @ 1930 Hours.**
- **Sunday Night ARES 2 Meter Net @ 2000 Hours.**
- **Tuesday AfterNoon 2 Meter Net @ 1200 Hours.**
- **Monday & Thursday Night 40 Meter Nets on 7.170 MHz (+/- 5 or 10 kHz) @ 1930 Hours.**
- **Thursday Night Rag Chew 2 Meter Net @ 2000 Hours.**

All 2 Meter Nets are on our 147.180 MHz (PL 131.8) repeater as well as on EchoLink W2MMD-R.

Fox Hunt 34 - Pre-Autumnal Fox Hunt - Sunday, September 14, 2025

Please join us from 1-2pm on **Sunday, September 14, 2025** for the next GCARC hidden transmitter foxhunt. With Eagles game not until after 4pm, this is great chance to come out and try any new equipment and skills you have while having some whole family fun. No prior experience needed!

Pair up with other hunters to find the fox for fun. **Jim Wright N2GXJ** will be hiding the Fox this time.

Who will find it first this time? Hope to see you there!

Virtual Traffic Handling Training Coming To SNJ Section

By Dave Sheppard W2PAX - ARRL SNJ Section Traffic Manager

In an effort to bring formal traffic handling back to South Jersey, please join us **October 7 and 14, 2025** from **8 to 9 PM** on ZOOM for training sessions on the National Traffic System and radiogram format. The first session will be a basic description of what the NTS is and how it functions, moving messages across North America and around the world. The second session will be devoted to the radiogram, breaking down its parts and how to send one by voice.

If you want to be a part of these training sessions, please contact **SNJ SM Ron Fish KX1W** at **ronf404@aol.com** to be added to the email distribution for the ZOOM link.

For questions or additional information, contact **SNJ Section Traffic Manager Dave Sheppard W2PAX** at **csxtbonevalley@comcast.net**.

General Membership Meeting

Wednesday, September 03, 2025 @ 1900 Hours

Pfeiffer Community Center

Simulcast Live Via ZOOM : Meeting ID : 914 7364 1808; Passcode : 843147
Join ZOOM Meeting Link : https://bit.ly/3Pt4dLO

Go to : https://gloucestercountyarc.weebly.com/2025-content--activities--resources.html to download the ZOOM log-on instructions PDF

Logging Software

By Roland Anders K3RA

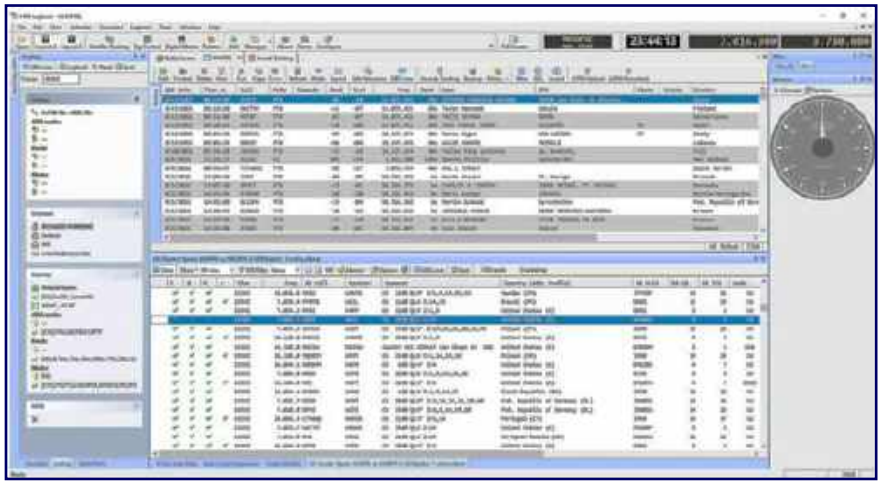
Keeping a reliable and organized log of your on-the-air contacts is more than just good practice - it's essential for awards, contests, QSL confirmations, and personal record-keeping. Whether you're a casual operator or a serious DX chaser, logging software can streamline your operations and enhance your ham radio experience.

Join us at this month's General Membership Meeting for an informative session led by Rol Anders K3RA, who will guide us through the wide array of logging programs available today. With so many options in the market, choosing the right one can feel overwhelming. Rol will help you cut through the clutter and identify the software that best fits your operating style and needs.

He will cover :

- What is a Ham Radio Log?
- Basic advantages of computer logging
- Computer and station hardware considerations
- What to consider when choosing a logger?
- Some popular general logger choices with demo
- Screen shots of some popular loggers
- Contest loggers versus general purpose loggers - do I need both
- The most popular contest loggers

Whether you're just starting out or looking to upgrade your current setup, this session will provide valuable insights and practical recommendations. Don't miss this opportunity to learn how logging software can make your ham radio operating more efficient, organized, and fun.



Tech Saturday Forum

September 13, 2025 @ 0900 Hours

W2MMD Clubhouse

Jon Pearce WB2MNF : Setup & Use of the Unlicensed 915 MHz Meshtastic Radios

Jon will give a short presentation on the setup and use of the unlicensed 915 MHz Meshtastic radios that several members have starting experimenting with because of the large user base in and around Philadelphia that creates a far-reaching network. These radios are set up quite differently from the ham configurations that were used in the 433 MHz radios, using "channels" instead of user-assigned frequencies and allowing encryption. There's more to be learned about their configuration and use than can be assembled and presented at that session but we should be able to get new users started with these radios.

Over the next few months several of us are experimenting with expanding their use to communicate across networks using internet-based MQTT messages and also to use them beyond messaging for more advanced data transfers. We can introduce those topics but they'll need to be covered in more depth at a later session after more experimentation and research.

A great option for these devices is the combination sold by **Amazon (http://bit.ly/422Mgu2)** for about $65. This includes ***TWO Heltec V3 radios***, each with a plastic case, SMA-mounted antenna and a LiPo battery that will power the unit when not powered by the ***Heltec's USB-C connector***. This create a nice portable station for a low price. They need to be flashed with the Meshtastic firmware, which can be done at the **flasher.meshtastic.org** website or on Tech Saturday.

If you're interested in these radios, pick up one or more of them (be sure they're the 915 MHz version) and come out to the Clubhouse on September 13, 2025.

NTS Resources

The National Traffic System® (NTS) is a network of Amateur Radio operators who move information during disasters and other emergencies. General messages offering well wishes also move through the NTS to help test the system and to help Amateur Radio operators build traffic handling skills. While the NTS is primarily set up to serve the United States and Canada, it is possible to move traffic internationally through the NTS through various local, regional, area, and international network connections.

- **NTS 2.0 : https://nts2.arrl.org**
- **NTS Manual : https://www.arrl.org/nts-manual**
- **NTS Methods and Practices Guidelines Table of Contents : https://www.arrl.org/table-of-contents-nts-methods-and-practices-guidelines**
- **Handling Instructions : https://nts2.arrl.org/hx-handling-instructions**
- **Numbered Texts : https://nts2.arrl.org/numbered-texts**
- **Form Encoding Rules for Form : https://nts2.arrl.org/form-encoding-rules-for-forms**

"Dinner @ The W2MMD Clubhouse"
Wednesday, September 24, 2025 @ 1800 Hours

GCARC Monthly VE Exam Testing Summary - August 2025

By Chris Prioli AD2CS

Two scheduled VE sessions here held in August this year, both of which occurred on Thursday 14 August 2025. The first of these, held in late afternoon that day, was a private session held for the STEM Camp students, of which there were four who enrolled for the license exam. While the names of the students will be withheld for school privacy reasons, suffice it to say that none of the students were successful in the exam attempt. The VE session was held at the W2MMD Clubhouse and was attended by the following Volunteer Examiners, with **Chris Prioli AD2CS** serving as Team Liaison :

- **Joe Gadoury N2JJG**
- **Earl Moore KC2NCH**
- **Gary Reed N2QEE**
- **Rich Subers W2RHS**

Joe Gadoury N2JJG is a newly-accredited ARRL VE, working with our team for the first time during these sessions.

The regular monthly VE session was also held on Thursday, 14 August at the W2MMD Clubhouse. There were five exam candidates, four of whom were seeking a new Technician (Element 2) license level, while the fourth was there for a license upgrade to General (Element 3) status. The session was attended by a total of seven GCARC Volunteer Examiners. The Team Liaison for this session was **Chris Prioli ADCS**.

The candidates, who were all successful in their basic testing endeavors, were :

- **Daniel Bates K2DLB, newly-minted General from Deptford, NJ**
- **Matt Bogacki KE2GNY, newly-minted Technician from Mullica Hill, NJ**
- **Drew Brining KD3BTO, newly-minted General from Philadelphia, PA**
- **Craig Metzger KE2GNU, newly-minted Technician from Vineland, NJ**
- **Marian Yanka KE2GOL, newly-minted Technician from Moorestown, NJ**

Drew Brining KD3BTO took both the Element 2 (Technician) and Element 3 (General) exams and passed both, earning his General license. The VE Team proctored the exam session using completely electronic methodologies. This means that the candidates completed the exams online, and that all grading and submissions were done online as well.

The GCARC VE Team that proctored the exam session included the following Volunteer Examiners :

- **Joe Gadoury N2JJG**
- **Earl Moore KC2NCH**
- **John O'Connell K2QA**
- **Gary Reed N2QEE**
- **Mike Resnick N2WOQ**
- **Court Smith KD2SPJ**
- **Rich Subers W2RHS**

The next regularly-scheduled VE session will be held on Thursday, 11 September 2025, at 1900 hrs and will be held at the Clubhouse, as usual. In addition, a special VE session will take place on Sunday, 7 September 2025 as an adjunct to the GCARC HamFest. That session will begin at 0800 hrs at the W2MMD Clubhouse. The VE team will be using the ExamTools system to its fullest capability, within our current technological means.

It is important that all test candidates going forward will be advised, whenever possible, to pre-register and pre-pay for the exam online. Specifics of that process are explained at : **https://veteam.w2mmd.org**

Membership Badges Ready For Pick-Up

They can be picked up at the W2MMD Clubhouse or at the monthly General Membership Meetings

Chris Angelastro KE2DST
George Badger W3AB
Jerry Barnish K2EAB *
Jim Bishop KE2EUD
Bryan Bossle KE2APN
Joshua Boylan KE2FSC
Greg Ciraula K3GC *
Paul Cosenza KD2RDD
Dave Danichkin KD2UXC
Jon Davidson KE2DYD
Bryan Eveland KM4SJS
Misael Fernandez KE2EBL
Jim Foster W3JNF
Gary Hewitt N2WHV *
Josiah Jarvis KE2BRD
Jim McCullough KE2BEL
Dennis McManus W3IMA
Robert McMeekin WA2CJI
Ron Newman KE2DPO *
Rosemarie Newman KE2DPP *
Frank Parsinitz KD2GSY
Jack Snyder AI2D
Jacek Stefanski N2FCH

The Clubhouse is open and accessible every Saturday from 0700 until 1600 Hours, and on the third and fourth Wednesday evening of each month as well as the second Thursday evening of each month from about 1700 until 2000 Hours.

The badges can also be picked up at any General Membership Meeting. They will be displayed at the Hospitality Table

If there is an asterisk (*) after your call sign above, your badge is a replacement and has a cost of $5.00 payable to the Club at the time of pickup of the badge.

So you find our website confusing, can't find anything

I have created a page called "Quick Links"

On this page you will find "Buttons" to some the most popular pages
I will add more as time goes on, but I hope this helps your journey navigating through your Club Website!
https://gloucestercountyarc.weebly.com/quick-links.html

New Members Support Group & Discord Channel

- **Organized By Jim Beury KE2DRN**
- **Objective : To focus Club resources on the needs of newly licensed members**
- **Supported by "new_members" Discord Channel**

Additional Support :

- **Saturday Morning @ The W2MMD Clubhouse**
- **GCARC@MAILMAN.QTH.NET Club E-mail Reflector**
- **E-Mail President @ w2mmd.org**

DAs and DITs

>> Update to last month : New Club member **Angel Papineau** finally got a callsign : **KD3BRI.**

>> Congratulations to **Daniel Bates K2DLB** (ex. KE2GJA) for his vanity callsign and upgrade to **General Class**.

>> Condolences to **Mary Delemarre W2TDS** and family with the loss of her mother.

>> Congratulations to **Angela Metzger KE2DRJ** who has been appointed as the 1st ARRL Southern New Jersey Section Youth Coordinator.

>> Congratulations to **Craig Metzger KE2GNU** on becoming a newly licensed Technician Class.

ADIF Logs Wanted When Operating As W2MMD @ The Clubhouse

By Jim Wright N2GXJ - Contact me via e-mail on Club Roster List

It is a common courtesy in ham radio to be able to QSL 2-way contacts made with other hams. We're pretty good about doing this for our field day contacts made each year, but are falling behind in this for contacts we make from the Clubhouse as W2MMD.

So here is the ask :

If you operate from the Clubhouse as W2MMD (e.g. on HF, UHF/VHF, or on Satellite, at Tech Saturday, or during contests or other), please email me the electronic log entries in ADIF format from the logger program you used for those contacts?

That way, just like I do following field day each year, I can get them uploaded to LOTW and to eQSL to offer the courtesy of an electronic QSL to those who make contact with us as W2MMD here in NJ.

Thank you

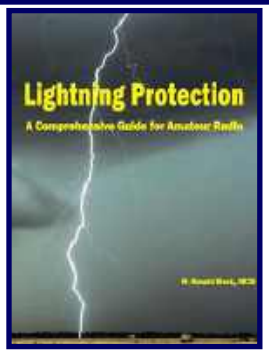
Need a ride to a Club meeting, event, or activity?

Just send a message to the Club's e-mail reflector asking if a member can pick you up

GCARC <*at*> MAILMAN <*dot*> QTH <*dot*> NET

All Club members have access to this FREE e-mail service

Lightning Protection :
A Comprehensive Guide for Amateur Radio
Author : W. Ronald Block, NR2B
Contact : ron@wrblock.com
Website : www.wrblock.com



Regional (Atlantic & Hudson Divisions) Hamfests & Events

September 06, 2025 : Ocean-Monmouth Amateur Radio Club, Fall Hamfest, The Spring Lakes Heights Fire Company No. 1, 700 Sixth Avenue, Spring Lake Heights, NJ. **www.n2mo.org**

September 06, 2025 : Saratoga County Amateur Radio Association, 39th Annual Hamfest 2025, Saratoga County Fairgrounds, 162 Prospect Street, Ballston Spa, NY. **www.k2dll.org**

September 07, 2025 : Butler County Amateur Radio Association, BCARA SwapFest 2025, Unionville Fire Department, 102 Mahood Road, Butler, PA. **www.w3udx.org**

September 13, 2025 : Wayne Radio Amateur Emergency Team, WRAET Hamfest & Electronics Show, Wayne United Methodist Church, 99 Parish Drive, Wayne, NJ. **www.facebook.com/groups/wayneraet**

September 14, 2025 : Clearfield County Amateur Radio Club, Central Pennsylvania Hamfest, Clearfield County Fair Grounds, 5615 Park Street, Clearfield, PA. **www.clearfieldcountyarc.net**

September 14, 2025 : Eastern Pennsylvania Amateur Radio Association, EPARA Hamfest 2025, Moose Lodge 1336, 705 Stokes Mill Road, East Stroudsburg, PA. **www.qsl.net/n3is**

September 14, 2025 : Mount Beacon Amateur Radio Club, MBARC Fall Fest, Knights of Columbus Hall, 339 Route 82, Hopewell Junction, NY. **www.wr2abb.org**

September 20, 2025 : Fair Lawn Amateur Radio Club, 5th Annual FLARC Hamfest, Fair Lawn Memorial Pool, Morlot Avenue & Essex Street, Fair Lawn, NJ. **www.fairlawnarc.com**

September 20, 2025 : Bear Bait Radio Club, Tailgate Fest, Town of Clay Highway Building, 4483 State Route 31, Clay, NY. **www.bearbaitradioclub.com**

September 27, 2025 : Amateur Radio Association of the Southern Tier, 50th Annual Elmira Hamfest & Computerfest, Chemung County Fairgrounds, 170 Fairview Road, Horseheads, NY. **www.arasth3.org**

September 27, 2025 : Garden State Amateur Radio Association, Ham Fest, Monmouth-Ocean Educational Services Commission Parking Lot, 100 Tornillo Way, Tinton Falls, NJ. **www.gsara.club**

NJ QSO PARTY

Sponsored by the Burlington County Radio Club NJ K2TD

September 20, 2025 marks the annual running of the **New Jersey QSO Party**, from 10 am EDT to 10 pm EDT! For those of you unfamiliar with QSO Parties, these are weekend events sponsored by clubs in individual states or regions (the 7th Call Area, New England, etc.).

The **New Jersey QSO Party (https://sites.google.com/view/k2td-bcrc/nj-q)** is sponsored by the Burlington County Radio Club (BCRC). The chairman of the NJ QSO Party is Don Corrington, AK2S.

QSO Parties work like this - you get on the air and send your call, RS(T), and county. NJ Counties use 4 letter abbreviations (see below). The objective is to work as many stations as possible within your state and throughout the rest of the US. Every state and NJ county is considered a "Multiplier" and adds to your total score. Three plaques are given to the overall winner (NNJ or SNJ), the winner of the other NJ Section, and the non-NJ winner.

There is an group called the **State QSO Party Challenge (https://stateqsoparty.com)**. It was started to drive interest in working the various QSO Parties. There are 48 approved QSO Parties in the group, including the New Jersey QSO Party. Check out their webpage as they have their own levels of awards.

Bottom line, you can participate in the state party no matter your class of license. It is primarily SSB and CW, although RTTY is allowed, but FT4/FT8 is not.

See you on September 20th in the New Jersey QSO Party!

Ron Fish KX1W
ARRL SNJ Section Manager

County	Abbreviation		County	Abbreviation
Atlantic	ATLA		Hudson	HUDS
Bergen	BERG		Hunterdon	HUNT
Burlington	BURL		Mercer	MERC
Cape May	CAPE		Middlesex	MIDD
Camden	CMDN		Monmouth	MONM
Cumberland	CUMB		Morris	MORR
Essex	ESSE		Ocean	OCEA
Gloucester	GLOU		Passaic	PASS
Salem	SALE		Somerset	SOME
Sussex	SUSS		Union	UNIO
Warren	WRRN			

Get Your Kicks On Route Sixty-Six - September 5-14, 2025

By Jim Wright N2GXJ

This will be the 26th year of this on-air special operating event. Running from 8pm local time our Friday night September 5, to same time on Sunday night, September 14, twenty four stations using 1x1 callsigns, from W6A to W6Y, will be on the air as much as possible from locations along the famous path of the old Route 66. If you've done this event before, you know how much fun it can be. New for 2025 is bonus station W6Y, which is listed as an Aeronautical Rover.

Immortalized in song lyrics performed by **Nat King Cole**, Route 66 was one of the original highways in the United States Numbered Highway System. Covering more than 2400 miles, this was the primary route for those migrating West, starting in Chicago, Illinois and passing through Missouri, Kansas, Oklahoma, Texas, New Mexico, and Arizona, before terminating in Santa Monica, California.

Why not join in on some of the nostalgia, and look for some of these stations that will be on-air to share in commemorating the history of the ***"Mother Road"?*** There's a certificate and decal available for contacting at least one station. Details for this, plus more background on the road and the event, lists of participating clubs and stations, printable log sheets, and more, are provided in the many drop-down tabs found in the green area at the top of the web page **https://w6jbt.org**. Good luck to all who join in!

Armed Forces Day Crossband Test - May 10, 2025

By Jim Wright N2GXJ

Received this confirmation card in the mail from Ft. Huachuca, AZ.

This is from the AFD Crossband test we'd talked about back in the May 2025 CrossTalk, where the military stations transmit outside of the ham bands and tell you where they are listening within the ham bands for your reply.

Congratulations to all our Club members who took on this challenge and succeeded this year!

The Education Connection

By Chris Prioli AD2CS - chris@ad2cs.com
www.ad2cs.com

September 2025

It is rapidly approaching… the start of the Fall 2025 Educational program, which includes the GCARC Ham Exam Preparation Class Session X. That's right - the ***tenth*** class series to be held. At this point, registrations are very low and slow - few registrants, and no great rush to sign up. At this point, I do not have sufficient registrants to hold ***any classes!*** If I get three more Extras, I can run an Extra class. I need four each Technician and General registrants to run those classes.

I know that we must have some members who are interested in upgrading their General-level tickets to the Amateur Extra level… so where are you all? There is no better opportunity to learn the material than to take our classes - just ask any of the Extra-level members who have been through the class. I am confident that most if not all of those folks would tell you that the class is quite beneficial, and that it is well worth taking the class if you want the upgrade.

Similarly, we must have a few of our newer Technicians out there who would like to upgrade to the General level. Now is the time to do it… or else wait for the Spring session in April of 2026. Just think of all the new bands that a General ticket will open up for you! You will finally be able to play around with 40-meter FT-8, or to get on the 40-meter nets, or any one of several other great opportunities that would suddenly be open to you. What's that saying? ***JUST DO IT!*** Register for a class as soon as possible so that I can plan properly for the Fall session. Registrations can be completed on the Club website at **https://gloucestercountyarc.weebly.com/license-classes.html**.

Moving along… I am looking for our next group build project idea. If you have an idea for a project that would be suitable - and practical - for our Club to take on, send it along to me so that I can kick it around with Jon and the BOD.

Something that I find very interesting has come my way, and I think that there may be some others who would be interested in this one. I got myself involved in the design of a 5-element Yagi. When I started, I was working under the apparently mistaken belief that it was going to be a single-band antenna at two meters. Boy, did I have a sweet setup all worked out. Five elements. 8.14dBd gain overall, 23.54dB F/B, 3dB beamwidth 52.5° in elevation and 67.5° in azimuth, 95.7% efficiency with an input impedance of 51.37-j6.34Ω. Using a gamma match with 12pF capacitance, the VSWR was predicted as 1.27:1 @ 144 MHz, 1.05:1 @ 146 MHz, and 1.58:1 @ 148 MHz.

I loved that thing so much that I wanted to marry it!

Then I found out that I needed to work in 70cm capability. Suffice it to say that things fell apart mighty quickly at that point.

I am ***still*** working on it! I'll let you all know how I make out with it when all is said and done.

That's it for now… See you next month!

GCARC VE Team : 2025 License Exam Monthly Summary						
	Technician Class		General Class		Amateur Extra Class	
	Monthly	YTD	Monthly	YTD	Monthly	YTD
January	0	0	0	0	0	0
February	2	2	0	0	1	1
March	1	3	2	2	0	1
April	0	3	0	2	1	2
May	1	4	1	3	1	3
June	4	8	3	6	0	3
July	3	11	1	7	0	3
August	4	15	2	9	0	3
September						
October						
November						
December						

New ZOOM Guidelines For General Membership Meetings

To enhance the experience for everyone attending the General Membership Meeting, whether in person or via Zoom, the Board of Directors has established some guidelines for Zoom participants. These guidelines are designed to ensure that everyone can focus on the meeting while also allowing Zoom participants to interact before the meeting starts.

Here are the guidelines:

- **Before the Meeting :**
  - Zoom participants are welcome to keep their cameras and microphones on to chat among themselves before the meeting begins. During this time, the Zoom audio will not be broadcast to the general audience, and local audio will not be connected to the Zoom meeting.
- **During the Meeting :**
  - Just before the Pledge of Allegiance, a reminder will be posted for Zoom participants to mute their microphones and turn off their cameras. This ensures that all Zoom participants will see the meeting camera instead of another Zoom participant's camera. Participants in the room never see the cameras of the Zoom participants.
  - Zoom participants can use the ***"Raise Your Hand"*** button to ask questions or make comments at appropriate times during the meeting. The Zoom operator will notify the moderator, who will recognize the comment or question at the right time.
- **After the Business Meeting :**
  - The Zoom audio will be muted immediately after the business meeting concludes to prevent any disruptions to the in-person audience from the PA speakers.

Please adhere to these guidelines to ensure a smooth and enjoyable meeting experience for everyone. Following these protocols will help us maintain an inclusive and focused environment for both in-person and remote attendees. Thank you for your cooperation!

Tuesday AfterNoon Net @ 1200 Hours

Net Control Stations :
Steve Farney W2SEF; Rich Subers W2RHS;
Greg Ciraula K3GC; & Jeff Garth WB2ZBN

147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks

Greg Ciraula K3GC : September 2, 2025
Steve Farney W2SEF : September 9, 2025
Rich Subers W2RHS : September 16, 2025
Jeff Garth WB2ZBN : September 23, 2025
Steve Farney W2SEF : September 30, 2025

If you would like to be a Net Control Station for this net, please contact Steve Farney W2SEF

"The big thing about being in a club and being a "Ham" is to help each other when there is a need "
- W2SEF

Thursday Night Rag Chew Net @ 2000 Hours

Net Control Stations :
Mary Delemarre W2TDS; Gary Mirkin WA3SVW;
Steve Farney W2SEF; & Jeff Garth WB2ZBN

147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks :

Jeff Garth WB2ZBN : September 4, 2025
Mary Delemarre W2TDS : September 11, 2025
Gary Mirkin WA3SVW : September 18, 2025
Steve Farney W2SEF : September 25, 2025

Jeff Garth WB2ZBN : October 2, 2025
Mary Delemarre W2TDS : October 9, 2025
Gary Mirkin WA3SVW : October 16, 2025
Steve Farney W2SEF : October 23, 2025
Jeff Garth WB2ZBN : October 30, 2025

Jeff Garth WB2ZBN : November 6, 2025
Mary Delemarre W2TDS : November 13, 2025
Gary Mirkin WA3SVW : November 20, 2025
Happy Thanksgiving : November 27, 2025

Jeff Garth WB2ZBN : December 4, 2025
Mary Delemarre W2TDS : December 11, 2025
Gary Mirkin WA3SVW : December 18, 2025
Merry Christmas : December 25, 2025

If you would like to be a Net Control Station for this net, please contact Jeff Garth WB2ZBN

Gloucester County Skywarn Net

The Gloucester County Skywarn Net is held every Sunday @ 1930 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All Are Welcome To Participate

Net Control Stations : Charlie Wahl KC2STO ; Steve Broomhead KB2RTZ; & Jeff Garth WB2ZBN

Gloucester County ARES Net

The Gloucester County ARES Net is held every Sunday @ 2000 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All are welcome to participate

Net Control Stations :

Steve Farney W2SEF; Bob Keogh KD2NEC; Karl Frank W2KBF; Al Arrison KB2AYU; Gary Mirkin WA3SVW; Greg Ciraula K3GC; & Todd Woodward KD2ESH

Anyone who is interested in joining the Gloucester County ARES Team, is invited to contact Bob Keogh at KD2NEC @ QSL.NET

Current Website Updates : Go to this page to find out the latest changes & updates on our W2MMD Website

https://gloucestercountyarc.weebly.com/current-website-updates.html

ARRL Learning Center

https://learn.arrl.org

Discover how to make Amateur Radio your own.

Online courses from the ARRL Learning Center provide ARRL members with additional instruction and training for getting on the air, emergency communications, and electronics and technology

Monday & Thursday Night 40 Meter Net @ 1930 Hours
7.170 MHz (Plus or Minus 5 to 10 kHz)
NCS : Jim Clark KA2OSV

At The Repair Bench…

A monthly column describing a recent repair bench event.

By Chris Prioli AD2CS - chris@ad2cs.com - www.ad2cs.com

Daiwa SWX-777 - September 2025

A couple of months ago (as I write this), a customer brought his ***Ham-Soku SWX-777 SWR & Power Meter*** to me for repair and modification. This unit is a very early product of the ***Daiwa Company of Japan***, and is a dual-needle meter rated for frequencies from 1.8 to 30 MHz. It has two power ranges for which it is calibrated, which include 1000W forward with 200W reverse, and 200W forward with 40W reverse. His instructions to me were to clean the unit, and to install some illumination for the meter to enable its easy use in conditions of darkness.

Figure 1 - Ham-Soku (Daiwa) SWX-777

When I examined the device, I discovered that someone had already been here to install meter illumination, and had done a clearly ***terrible*** job of it. First off, there are two points that must be understood right off the bat… 1) that the unit ***natively*** does not use any external electrical power but has circuitry that is powered by the measured signal, and 2) that the modifications that had been made had been designed to operate at 230VAC, the typical line voltage in use in the part of Africa where my customer was using this meter.

The previous modification had involved gluing to the rear panel of the unit a DPST pushbutton switch of the type typically used in a desktop computer as the main power switch. The 230VAC line cord was wired directly to this switch with one lead on each pole of the switch. The remaining two terminals of the switch held a length of line cord wire that was routed in through a drilled hole in the rear panel. There was no shock protection at the switch, and there was no chafing protection for the line cord as it passed through the drilled hole and into the unit. There also was no pushbutton cap on the switch actuator; it was a bare square post with which the switch is equipped.

Internally, the illumination circuit consisted of a small transformer, a single 1N4001 diode, a 1500µF/16V radial electrolytic capacitor, and a pair of wire leads that were routed into the meter enclosure, again through a drilled hole in that enclosure, at the upper right-hand corner of the meter face. One of these leads connected to the positive terminal of the capacitor, to which the cathode of the diode was also soldered. The diode anode was soldered to one of the transformer secondary leads. The other secondary lead was soldered to the negative terminal of the capacitor, as was the second wire lead that was routed into the meter enclosure. The capacitor was glued end-down in a vertical orientation to the floor of the unit, near the transformer. The incoming line cord, which had chafed through on the edge of the drilled hole in the rear panel, was connected to the two transformer primary leads. None of the various solder joints was taped, insulated, or covered in any way, and there was no chafe protection for the wire leads going into the small hole drilled into the meter enclosure.

A few words are in order about the meter itself as a component part of the SWX-777 overall unit. The meter is a cross-sweep dual-needle D'Arsonval movement with viewing dimensions of four inches wide by three inches high. This movement and face plate are mounted inside a steel enclosure that is four-and-an-eighth inches square, which in turn has a lens that matches the viewing area.

At The Repair Bench - Continued on page 20

At The Repair Bench - Continued from page 19

The steel enclosure is just about an inch deep, and is closed at the back with a two-layer plastic plate through which the three meter connections pass. There is a positive lead for each needle and a common negative lead.

It was necessary for me to disassemble the meter assembly in order to access the internal illumination components. What I found surprised me. First of all, there was a small curl of steel drill shrapnel that had fallen into the meter movement and was held against the permanent magnet there, jamming one of the two needles of the meter. In addition, there was a small (half-inch diameter) circle of paper also stuck in the meter movement. This was apparently a label of some sort whose adhesive had failed, allowing the label to fall off and down into the meter. Finally, I found that the illumination had been provided by a rigid strip of miniature (0.120" x 0.140") LED's, with twelve individual LED's in the strip. The LED's had failed, which did not surprise me at all, as there was no current-limiting resistor in the LED circuit.

Figure 2 - Rear Panel Modifications

Before I could do anything about the illumination itself, I had to correct the incoming power problems. It was beyond unsafe as it was, and it is a miracle that nobody was shocked or killed by the unit. I began by disconnecting the incoming line cord from the transformer primary leads, and then removed the switch from the rear panel of the SWX-777. I removed the wire leads from the switch and discarded the switch. I then marked and drilled two holes in the rear panel of the unit, one on either side of the rear panel, avoiding the power-sensing tube that runs inside between the two SO-239 connectors on the rear panel. Into one of these new holes, I installed a double-pole toggle switch rated at 2A/250VAC. I then passed the line cord through the other new hole, installing a proper strain relief bushing into that hole to secure and protect the line cord. The line cord was then soldered to the toggle switch, with one lead on each pole. Next, I connected the transformer primary leads to the toggle switch. This completed the necessary corrections to the incoming power, and I could now continue with my testing and analysis of the illumination circuit.

When powered up on 230VAC via a step-up transformer on my bench (connected through my isolation transformer), I found that there was a ragged 17 volts of pulsating DC at the LED strip. Remember… in addition to the high voltage, there was no current limiting present, so it was inevitable that the LED's would fail. Of course, the reason that there was about seventeen volts there was due to the fact - as I could then infer - that the small transformer that had been installed inside the SWX-777 was one with a nominal 12VAC secondary. Standard transformer theory holds that the pulsating DC produced by a half-wave rectifier will be at the peak voltage of the AC input to the rectifier. A transformer that is rated at 12VAC refers to the RMS voltage of the output sinusoidal waveform from the transformer… which would in turn equate to a peak voltage of about seventeen volts (12V x 1.414 = 16.968V).

I sourced and ordered a flexible self-adhesive and trimmable LED strip that uses 12V white LED's. According to the specifications for the strip, there were 2400 LED's in the entire strip, which draws 3000mA at 12VDC. The LED spacing is set at 400 LED's per meter, or four per centimeter. I decided to install a 90mm strip of LED's inside the meter in place of the former strip that had been glued into position across the top of the meter enclosure, facing downward across the meter face plate.

At The Repair Bench - Continued on page 21

At The Repair Bench - Continued from page 20

At four LED's per centimeter, this 90mm strip would thus include thirty-six LED's. With the entire strip of 2400 LED's drawing 3000mA, each LED would then draw 1.25mA, or 45mA for the 90mm strip. Now I could design and build a proper power supply that would power these LED's for the long term.

I started with two four-terminal center-mount terminal lug strips and four 1N4001 diodes. I arranged the diodes into a full-wave bridge rectifier (FWBR) pattern and installed them to the terminal lug strips. Next, I added a 2200µF/16V aluminum electrolytic capacitor, with the positive terminal connected to the junction of two diode cathodes and the negative terminal connected to the junction of two diode anodes. These would become the positive and negative points of the power supply, respectively, with the capacitor providing filtering for the supply. Next, I added a heat-sinked LM7812 twelve-volt three-terminal voltage regulator IC, to which I had added a 0.22µF monolithic ceramic capacitor between the input (pin 1) and the ground (pin 2) terminals of the IC. In addition, I added a 0.1µF monolithic ceramic capacitor between the output (pin 3) and the ground terminals. I added a 270Ω 1% 2W metal film resistor to the output terminal of the voltage regulator IC and then soldered the input pin to the positive terminal of the FWBR and the ground pin to the negative terminal of the FWBR. To complete the power supply, I added heat shrink tubing as appropriate, and then I added a red and a black 22AWG stranded wire in about a ten-inch length each to the open lead of the 270Ω current-limiting resistor (red) and to the negative terminal of the power supply (black). Mounting holes were marked and drilled in the unit floor, and the power supply was then installed there using a pair of 4-40 x 1/4" machine screws and KEPS nuts. I was now ready to power the new LED strip.

OK - time for the ***"techy"*** stuff. How did I determine that I should use a 270Ω resistor for the current-limiting task? This is where Ohm's Law comes in. The LED strip, with its thirty-six LED's each drawing 1.25mA, would require 45mA total as I said earlier. The design output of my new power supply is a nominal twelve volts. According to Ohm's Law, resistance is equal to the voltage divided by the current. Thus, we have the following :

$$R = \frac{E}{I} = \frac{12V}{0.045A} = 266.6\overline{6}\Omega$$

With a calculated value of 266.67 ohms, the closest standard value is 270 ohms. Simple, right? So then… what was the actual final voltage and current supplied to the LED strip? Well, we already know that the current was somewhere in the vicinity of 45mA for the strip, which was comprised of a parallel string of individual LED's. Let's see if we can get more accurate with the LED current value.

The actual measured voltage out of the voltage regulator was 12.37VDC. Let's substitute that in for the nominal twelve volts used in the design process, but this time, we will also use the actual measured resistance of the dropping resistor installed in the circuit :

$$I = \frac{E}{R} = \frac{12.37V}{268.5\Omega} = 0.04607A \text{ or } 46.07mA$$

At The Repair Bench - Continued on page 22

At The Repair Bench - Continued from page 21

Enough of the ***"techy"*** stuff – let's get back to the modification work.

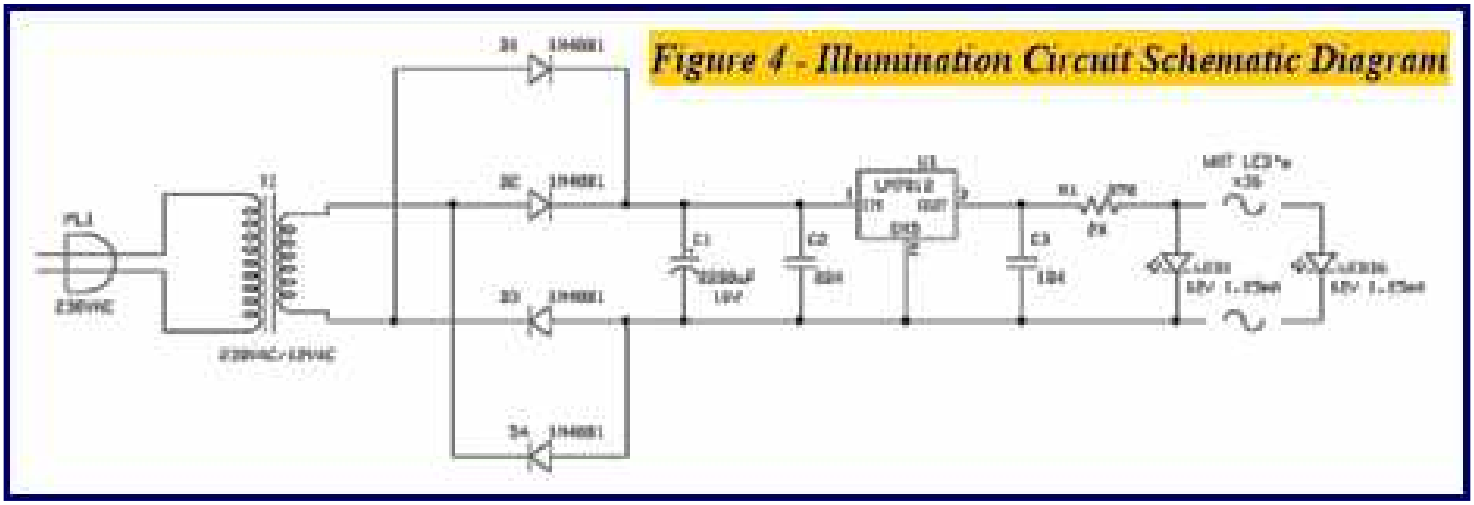


Figure 4 - Illumination Circuit Schematic Diagram

My next task was to enlarge the very small hole that had been drilled into the meter enclosure, with two goals in mind: a) to accommodate the two 22AWG wire leads entering there without the chance of chafing the wires, and b) to allow me to slide the LED strip into place inside the enclosure and against its upper inner surface.

I then soldered the red and black leads from the power supply to the LED strip, observing the proper polarity, and tested the operation of the new LED's. They worked as intended. Next, I cut the red and black 22AWG leads mid-length and stripped about 3/16" of each cut end. I then installed bullet-type insulated connectors to these leads, male at the meter end and female at the power supply end. This allows for easy future removal of the meter assembly from the unit without the need to cut any wires, as the meter illumination is now a plug-in affair. I removed the cover paper from the LED strip's adhesive, applied some tape over the solder joints where the leads attached, slid the LED strip into the meter enclosure, and pressed it into place. All that remained was to reassemble the meter and then to re-install it into the SWX-777 frame.

With the meter fully assembled and the leads for the LED plugged in (observing the wire colors), I did a final in-place test of the meter illumination and was very happy with the result. A Dymo-printed label set was installed to identify the purpose of the new switch on the rear panel. Finally, I installed the unit cover and called it ***"done".***

This was a fairly straight-forward modification of an existing unit, but all done with an eye towards a professional and finished appearance and the utmost in safety for the equipment user. It was quite surprising that anyone would have done a job the way the original LED strip was installed here, with its complete disregard for user safety or even the norms of electrical construction and assembly. In addition, the carelessness of drilling the meter enclosure and allowing a steel chip to fall into the meter movement is inexcusable. I can truly say that I am very happy with the final results on this job, and I hope that my customer is just as pleased.

Virtual NTS Training Net (VNTN) - New Zoom Link

The **Virtual NTS Training Net (VNTN)** continues to meet on Wednesday evenings at 7 PM Eastern time. Anyone interested in learning more about the NTS, radiograms, traffic nets, and message relay is welcome. Shawn Dodds, N1CVO, has been doing an excellent job in working with folks with varying levels of experience - including none - but would benefit greatly from the ability to share his screen for teaching purposes. For this reason, we have changed the Zoom link.

Effective Wednesday, August 6, the new link will be **https://bitl.to/4tL3** We look forward to seeing you there.

Amateur Radio Emergency Services - September 2025 Resources - News - Updates

By Bob Keogh KD2NEC - kd2nec@qsl.net
Gloucester County Emergency Coordinator

This month's update is a reprinted article on the next 3 pages by **Michael Prasad KC2UOA** from the **July 2025 QST Magazine**. Michael is a Certified Emergency Manager and a long-time disaster volunteer for the American Red Cross. He distributed the article to all the NJ ARES ECs, with the intention for us to use it for training.

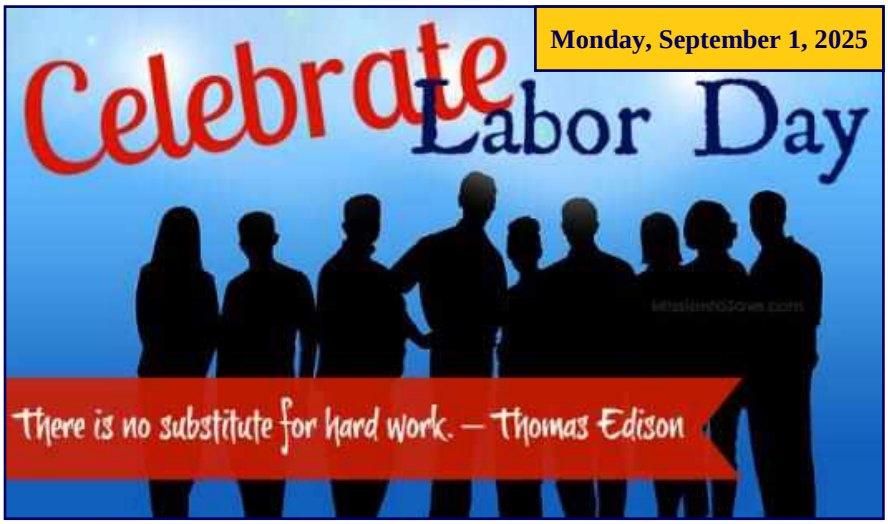
Reprinted with permission from the ARRL - **www.arrl.org**

ARES Resources (Updated as of November 2024)

ARRL ARES Registration Form : https://bit.ly/3Ae2pCf
Download the ARES Manual [PDF] : https://bit.ly/3iUhJLQ
ARES Field Resources Manual [PDF] : https://bit.ly/3QT4PtY
ARES Standardized Training Plan Task Book July 2024 Ver. 3.0 [Fillable PDF] : https://bit.ly/4dToEes
ARES Standardized Training Plan Task Book July 2024 [Word] : https://bit.ly/4heLXSU
ARRL ARES Plan July 2024 : https://bit.ly/3Uf8gyf
ARES Group Registration : http://bit.ly/3XodGpX
ARRL Emergency Communications Training : http://bit.ly/3J2gMMf
FEMA 2023 National Preparedness Report : https://bit.ly/3YrPWnY
Southern New Jersey Section Emergency Operations Plan 2023.PDF : https://bit.ly/3YqMdHb
ARRL ARES Monthly Newsletters : https://bit.ly/408OV5d

The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible to apply for membership in ARES. Training may be required or desired to participate fully in ARES. Please inquire at the local level for specific information. Because ARES is an amateur radio program, only licensed radio amateurs are eligible for membership. The possession of emergency-powered equipment is desirable but is not a requirement for membership.

If you are interested in learning more about the Gloucester County ARES Program or becoming an ARES member, please contact Bob Keogh (KD2NEC@QSL.NET)



2024 SET Success

New Jersey ARES is better equipped for surprise crises, thanks to this trial run.

Michael Prasad, KC2UOA

The Simulated Emergency Test (SET) on October 5, 2024, in New Jersey proved to be a successful collaboration between the American Red Cross and the Northern and Southern New Jersey Sections of the Amateur Radio Emergency Service® (ARES®). In addition to the national Memorandum of Understanding (MOU) between the American Red Cross and ARES, New Jersey has an MOU between the American Red Cross New Jersey Region and the ARRL New Jersey Sections for disaster planning and response.

SET in Motion

The 2024 New Jersey SET assumed a complete disruption of commercial communications within the state, including telephone, cellular, and internet services. This aligns with the Primary, Alternate, Contingency, Emergency (PACE) plan for communications systems continuity of operations, outlined by the Cybersecurity and Infrastructure Security Agency, as shown in Figure 1.

ARES volunteers simulated supporting two served agencies' shelter operators: the American Red Cross New Jersey and local New Jersey County government facilities. The simulation compressed 3 days of shelter emergency communications utilizing voice and digital amateur radio communications into approximately 3 hours. Voice communications were used for resource requests, announcements, and instructions. Digital communications via Winlink were used to transfer formal written messages, agency forms, damage assessment reports, local weather observations, and welfare messages for evacuees. Digital communications were used because they are faster and more accurate than formal verbal message handling. One of the goals of the SET is to utilize the most common technical capabilities (requiring the lowest level of licensing) to cover the wide range of operators, radios at sites, etc., while attempting to cover gaps in radio propagation, interference, and other factors impacting emergency-based voice and data communications.

There were 74 ARES operators for Northern and Southern New Jersey, and seven American Red Cross hubs were simulated. Forty-eight local shelters and Emergency Operations Center (EOC) sites were also represented. The teams handled 283 formal written messages. There were 91 for the American Red Cross, and 192 were directed to or from the local shelters. There were also 245 tactical messages, including 99 for the American Red Cross and 146 directed to or from the local shelters and EOCs. Volunteers put in 194 hours for the American Red Cross and 225.5 hours for the local shelters and EOCs.

Voice and Data Communications Systems Continuity Objectives

The New Jersey region of the American Red Cross follows a pyramid of strategic, operational, and tactical objectives for emergency communications (EmComm), as shown in Figure 2. During incidents that impact

PACE
PLAN
1 PRIMARY
the best, and intended, method of communications
2 ALTERNATE
another common, but less optimal method
3 CONTINGENCY
method may not be as fast, convenient, or reliable, but it can accomplish the task
4 EMERGENCY
communication method of last resort; emergency methods may cause delays or otherwise affect operations

Figure 1 — PACE plan outlined by the Cybersecurity and Infrastructure Security Agency. [Image courtesy of the Cybersecurity and Infrastructure Security Agency]

Copyright ARRL; ARRL Posting.

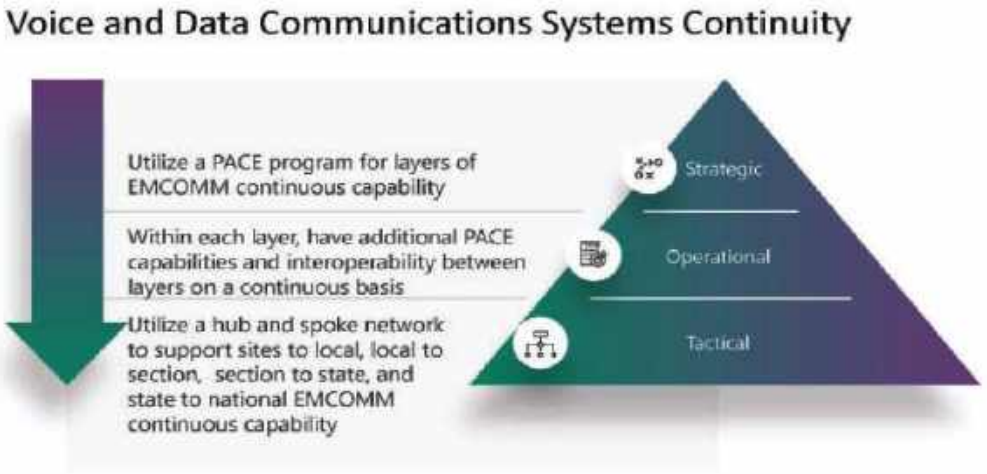

Voice and Data Communications Systems Continuity
Utilize a PACE program for layers of EMCOMM continuous capability
Within each layer, have additional PACE capabilities and interoperability between layers on a continuous basis
Utilize a hub and spoke network to support sites to local, local to section, section to state, and state to national EMCOMM continuous capability
Strategic
Operational
Tactical

Figure 2 — The voice and data communications systems continuity objectives pyramid. [Michael Prasad, KC2UOA, image]

the entire state, the American Red Cross organizes in a geographic hub-and-spoke model, as shown in Figure 3, using its existing offices for communications and logistics support between locations. Each hub was interoperable between PACE layers, and we also ensured there were redundancies and backups within each layer. For example, a primary voice-based EmComm layer could have copper landlines, Voice over Internet Protocol telephony, commercial cellular, and government emergency telecommunications service/wireless priority service. We are exploring Winlink, VARA FM, UHF/VHF simplex/repeaters, HF (60-meter, VARA), EchoLink, and more for the amateur radio PACE layer in New Jersey. Many of these tools are interoperable between EmComm layers. For example, Winlink can be used where there is commercial internet service and can be connected to places that do not have connectivity.

Challenges

The SET event leaders organized some planned but unannounced changes to disrupt the exercise momentum, such as severe weather, blocked roadways, and evacuee surges to existing shelter sites. These changes were timed and scheduled. However, some challenges occured that were unexpected by everyone.

First, a solo operator at a key communications site canceled at the last minute. This was realigned when the Information Technology Disaster Resource Center (ITDRC), a national volunteer nonprofit organization, was able to step in to support that location for radio communications. Remember to always have additional resources staged to backfill or supplant locations when necessary.

Then there was real-time police activity near an American Red Cross communications hub that caused roadblocks and more than a 2-hour delay at the start of the exercise. Only time could fix this, and message traffic resumed as soon as possible. The solution is being worked out because the physical dispersal of communications hubs depends on the topography, locations, and power of repeaters as well as other technical factors.

As a state, we are continuing to explore different bands, HF (which will require different licensing levels), and other options to bolster the capabilities of critical infrastructure/key resource sites.

Final Notes and Key Takeaways

The 2024 New Jersey SET showed that emergency communications can cover the whole state when the Northern and Southern New Jersey ARES teams coordinate with disaster services technology volunteers from the American Red Cross New Jersey Region. Communications connections for voice and digital transmissions were successful, even when unexpected challenges occurred, like relocating radio operators at the last minute, shifting operations due to frequency interference, poor or degraded equipment performance, and sporadic regional repeater performance.

One of the hallmarks of amateur radio operations for emergency services is demonstrating ARES team flexibility and problem-solving, which was put to the test during this SET. This exercise was successful, and the organizers want to conduct interoperable state-

Copyright ARRL; ARRL Posting.

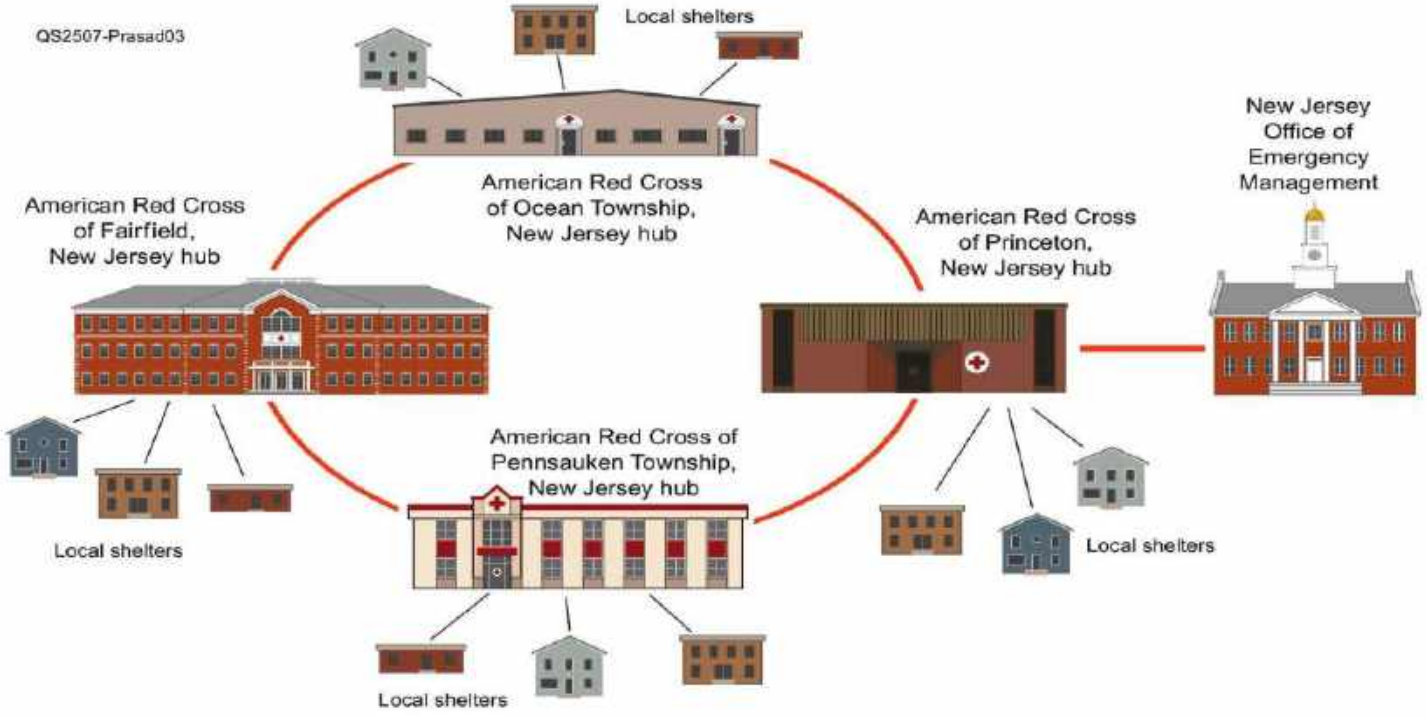


Figure 3 — A rough draft of the hub-and-spoke American Red Cross emergency communications plan diagram. American Red Cross hubs communicate with each other and other local shelters. The hub at Princeton also communicates with the New Jersey Office of Emergency Management.

wide SETs more frequently during 2025 by linking the SETs to the routine monthly nets conducted by the American Red Cross stations, ARES/Radio Amateur Civil Emergency Service, and even Military Auxiliary Radio System/SHAred RESources groups. Many times, these nets are geographically regionalized, and the capabilities and consistent operation of relays, repeaters, and usable frequency bands always need an improvement process. Emergency communications will always involve problem-solving and remain flexible.

SETs provide an opportunity to expand partnerships and support beyond the American Red Cross and ARES teams. During this SET, ITDRC was added as an exercise player to support one of the simulated shelter sites in an area that did not have ARES coverage. ITDRC benefited from this SET by practicing deploying their mobile assets and staff, which included amateur radio. The SET benefited from having the ITDRC team as a viable force multiplier.

These exercises help assess the need to upgrade radio equipment and directional antennas based on further investigation of adding backup bands/frequencies and confirm Winlink capabilities within American Red Cross EOCs. Continuing to involve American Red Cross command and general staff from a National Incident Management System/Incident Command System perspective would benefit everyone because message traffic is meaningful and actionable during the exercise.

Finally, the SET established a working framework for future SETs to be expansive in coverage, possibly including state-operated shelter sites, fixed kitchen sites, points of distribution, and other mass care elements for large-scale incidents. The framework is also in place if the healthcare and hospital networks want to exercise their PACE communications capabilities to include amateur radio.

Special recognition to Northern New Jersey Section SET Coordinator Jim Breheny, N2JLF, and Southern New Jersey Section SET Coordinator Tom Devine, WB2ALJ, for their response work and preparations for this SET exercise.

Michael Prasad, KC2UOA, has been a licensed ham since 2008. He is a Certified Emergency Manager and a long-time disaster volunteer for the American Red Cross. Michael can be reached at **michael.prasad3@redcross.org**.

For updates to this article, see the *QST* Feedback page at www.arrl.org/feedback.

VOTE
If you enjoyed this article, cast your vote at www.arrl.org/cover-plaque-poll

Copyright ARRL; ARRL Posting.

Club Member DMR IDs

Club Member	DMR ID
W2MMD Clubhouse	**3198604**
Michael Andrescavage N2ICV	3134044
Lance Appel KE2UC	3200487
Joshua Boylan KE2FSC	3216140
Steven Broomhead KB2RTZ	3218247
Alex Calabrese WA2ADS	3100583
Chuck Capasso WB2PGE	3169781
Matthew Carango N3QB	3169432
Todd Cecilio KA2YNT	3169458
Anthony Cerami N2OAC	3202759
Mark Clark N3QMJ	3102110
Norm Coltri K2NRC	3183851
Holden Correia-Fisher KD2JPV	3104911
Mike Covaleski N2MMC	3134855
Walter Coward WX2E	3166863
Bob Demola KD2GFL	3134319
Doug Dersch KD2VQA	3193630
Thomas Distelcamp Sr KC2GYC	3110869
Glenn Dougherty N2YIO	3161836
Adam Duncan W3DUN	3202691
Herb Dyer KT2Y	3134907
Harry Elwell AD5TT	3128498
Misael Fernandez Jr KE2EBL	3214756
James Foster W3JNF	3142117
Karl Frank W2KBF	3146716
Glen Guenther KE2BUO	3202079
Melissa Guenther KE2BWZ	3202496
Deirdre Anne Hebert AD2GQ (AB1ST)	3133330
Gary Hewitt N2WHV	3134654
Chuck Lanard KD2EIB	3134298

Club Member	DMR ID
Darren Malone KD2ALQ	3215227
Gary Mirkin WA3SVW	3165494
John Murrow KD2NHK	1134122
John Newman WB4YLM	3213273
Phil Nunzio WA3RGY	3134336
John O'Connell K2QA	3110610
Robert Pantazes W2ARP	3157208
Sheldon Parker K2MEN	3214037
Jonathan Pearce WB2MNF	3163415
Michael Pecorini K2MRP	3132996
Michael Pentimall KC3VTF	3203601
John Price III KD2QYC	3123583
Chris Prioli AD2CS	3195449
Michael Resnick N2WOQ	3215856
Frank Romeo N3PUU	3134935
Len Rust III W2LJR	3186225
Len Rust IV K2LJR	3196243
Dave Sheppard W2PAX	3112666
Cory Sickles WA3UVV	1142052
James Simeone KC2AOF	3134848
Stan Slachetka WA2JRZ	3213904
Court Smith KD2SPJ	3186243
Jackson Snyder AI2D	3164371
Rich Subers W2RHS	3204316
Brett Waller K2BKW (KC2UXQ)	3134261
Matt Wilson K2MFW	3134607
Bill Wood KD2OSJ	3197459
Jim Wright N2GXJ	3215168
John Zaruba Jr K2ZA	3134331
New Entries As Of 08/20/2025	

For more information, DMR links, and W2LJR's DMR presentations, go to :
https://gloucestercountyarc.weebly.com/dmr.html

DMR Configuration Sequence

1. **Obtain and Configure DMR ID :**
   - **https://www.radioid.net**
2. **Download Contact List :**
   - **http://www.dmrcontacts.com**
3. **Identify Repeater or Hotspot :**
   - **https://www.repeaterbook.com**
4. **Define Talk Groups**
   - **Numerical ID**
   - **Text Name**

https://brandmeister.network/?page=talkgroups

5. **Create Channel**
   - **Select Number**
   - **Assign Name**
   - **Select DMR ID**
   - **Assign Frequency**
     - **Transmit**
     - **Receive**
     - **Bandwidth**
   - **Power**
   - **DMR Mode (Simplex/Repeater)**
   - **TX Permit (Channel Free)**
   - **Assign Talk Group**
   - **Assign Color Code**
     - **Agreed Upon with Other Users**
   - **Assign Time Slot**
   - **Agreed Upon with Other Users**

6. **Create Zone**
7. **Add Channels to Zones**
8. **Configure Features**
9. **Upload Code Plug**
10. **Upload Contact List**

If you recently changed your callsign, contact idteam@dmr-marc.net to have your DMR ID transferred to your new callsign.

Club Merchandise from the K2ZA Workshop
Contact John Zaruba Jr K2ZA at k2za@icloud.com
Go To : https://gloucestercountyarc.weebly.com/club-merchandise.html

Gloucester County Amateur Radio Club
YouTube Channel
https://www.youtube.com/@W2MMD

CW And The Art Of Conversation

By John Zaruba K2ZA

Sometimes, especially when operating CW on the air, it can seem difficult to get past the more formulaic style of QSO. The tips included here can help you have better on-air conversations and get more enjoyment out of ham radio. But wait, there's more; these skills will also let you have better SSB engagements!

Most new CW operators start their journey with very simple contacts like Parks On The Air or Straight Key Century Club exchanges. The brain is still learning to interpret Morse code and having a formula (TU, 599, State, BK) helps to achieve successes early on and encourages more activity.

However, these template style contacts can start to feel unsatisfying as operator skill grows, sometimes causing us to think ***"is this all there is"?*** The answer is definitely ***"no, there is a whole lot more"*** and it is brought to you by longer form, unscripted, discussion unflatteringly referred to as ***"rag chewing".***

Rag Chew QSOs are a lot like fishing, not every cast of a lure is going to mean a fish dinner. Here are a few tips that will help you increase your success rate :

- Use an online scheduling tool like the **SKCC Sked Page (https://sked.skccgroup.com)** or **QSOFinder (https://qsofinder.com)**. Both services allow you to indicated what type of contact you're trying to have like a simple exchange, rag chew, or award specific.
- Watch the type of responses you get during a standard exchange **(QTH is ___, Rig is ___)**. If, for example, the other operator responds with ***"TX is homebrew 2 tube with SDR RX"*** this is a pretty big clue that they're probably proud of their station and most likely will be willing to talk about it further.
- Throw out some tidbits when you send your information ***"My QTH is Upper East Juxtaposition, 20 miles east of the world's largest paperclip"***. I often send my QTH as 40 miles west of Atlantic City rather than my actual hometown name since many more folks know of AC rather than Lower South Podunk. It's not uncommon for me to get a response like ***"oh, my spouse and I were there last year"*** and that is a great opening for further exchange.
- Similarly, if the QSO progresses to the ***"how old I am and how long I've been a ham"*** stage, include another item like ***"I also fly fish"***, ***"I enjoy woodworking***", or ***"I'm a Mets fan".*** Though that last one might not be as helpful.
- **Caryn Eve Murray KD2GUT**, who is a former journalist and current Amateur Radio Newsline staffer, suggests asking open ended questions. If you ever have the pleasure of working her, getting a question like ***"how was your day"*** is almost guaranteed.
- Be brave. Sometimes you're going to get a ***"73 TNX ES CUL"*** and that's OK too. Don't take it personally, try not to get discouraged. When things go well and you get the kind of exchange that makes you feel a connection to another human being, celebrate! If it happened on every QSO, it would not feel special.

One of the best side effects of an extended CW conversation happens when you get so wrapped up in the conversation that you start forgetting about the mechanics of sending and receiving Morse code. The conscious mind is thinking about the topic and the subconscious takes over the details.

The warm feeling you get from a great QSO is the payoff of all your hard work learning the Art of Morse Code!

2024-2028 Element 4 Amateur Extra Class License Question Quiz

This month we start up with Subelement E4 Amateur Practices (5 exam questions - 5 groups).
(Answers on Last Page)

E4A01
Which of the following limits the highest frequency signal that can be accurately displayed on a digital oscilloscope?
A. Sampling rate of the analog-to-digital converter
B. Analog-to-digital converter reference frequency
C. Q of the circuit
D. All these choices are correct

E4A02
Which of the following parameters does a spectrum analyzer display on the vertical and horizontal axes?
A. Signal amplitude and time
B. Signal amplitude and frequency
C. SWR and frequency
D. SWR and time

E4A03
Which of the following test instruments is used to display spurious signals and/or intermodulation distortion products generated by an SSB transmitter?
A. Differential resolver
B. Spectrum analyzer
C. Logic analyzer
D. Network analyzer

E4A04
How is compensation of an oscilloscope probe performed?
A. A square wave is displayed, and the probe is adjusted until the horizontal portions of the displayed wave are as nearly flat as possible
B. A high frequency sine wave is displayed, and the probe is adjusted for maximum amplitude
C. A frequency standard is displayed, and the probe is adjusted until the deflection time is accurate
D. A DC voltage standard is displayed, and the probe is adjusted until the displayed voltage is accurate

E4A05
What is the purpose of using a prescaler with a frequency counter?
A. Amplify low-level signals for more accurate counting
B. Multiply a higher frequency signal so a low-frequency counter can display the operating frequency
C. Prevent oscillation in a low-frequency counter circuit
D. Reduce the signal frequency to within the counter's operating range

E4A06
What is the effect of aliasing on a digital oscilloscope when displaying a waveform?
A. A false, jittery low-frequency version of the waveform is displayed
B. The waveform DC offset will be inaccurate
C. Calibration of the vertical scale is no longer valid
D. Excessive blanking occurs, which prevents display of the waveform

Element 4 Amateur Extra Class Quiz - Continued on page 31

Element 4 Amateur Extra Class Quiz - Continued from page 30

E4A07
Which of the following is an advantage of using an antenna analyzer compared to an SWR bridge?
A. Antenna analyzers automatically tune your antenna for resonance
B. Antenna analyzers compute SWR and impedance automatically
C. Antenna analyzers display a time-varying representation of the modulation envelope
D. All these choices are correct

E4A08
Which of the following is used to measure SWR?
A. Directional wattmeter
B. Vector network analyzer
C. Antenna analyzer
D. All these choices are correct

E4A09
Which of the following is good practice when using an oscilloscope probe?
A. Minimize the length of the probe's ground connection
B. Never use a high-impedance probe to measure a low-impedance circuit
C. Never use a DC-coupled probe to measure an AC circuit
D. All these choices are correct

E4A10
Which trigger mode is most effective when using an oscilloscope to measure a linear power supply's output ripple?
A. Single-shot
B. Edge
C. Level
D. Line

E4A11
Which of the following can be measured with an antenna analyzer?
A. Velocity factor
B. Cable length
C. Resonant frequency of a tuned circuit
D. All these choices are correct

W2MMD

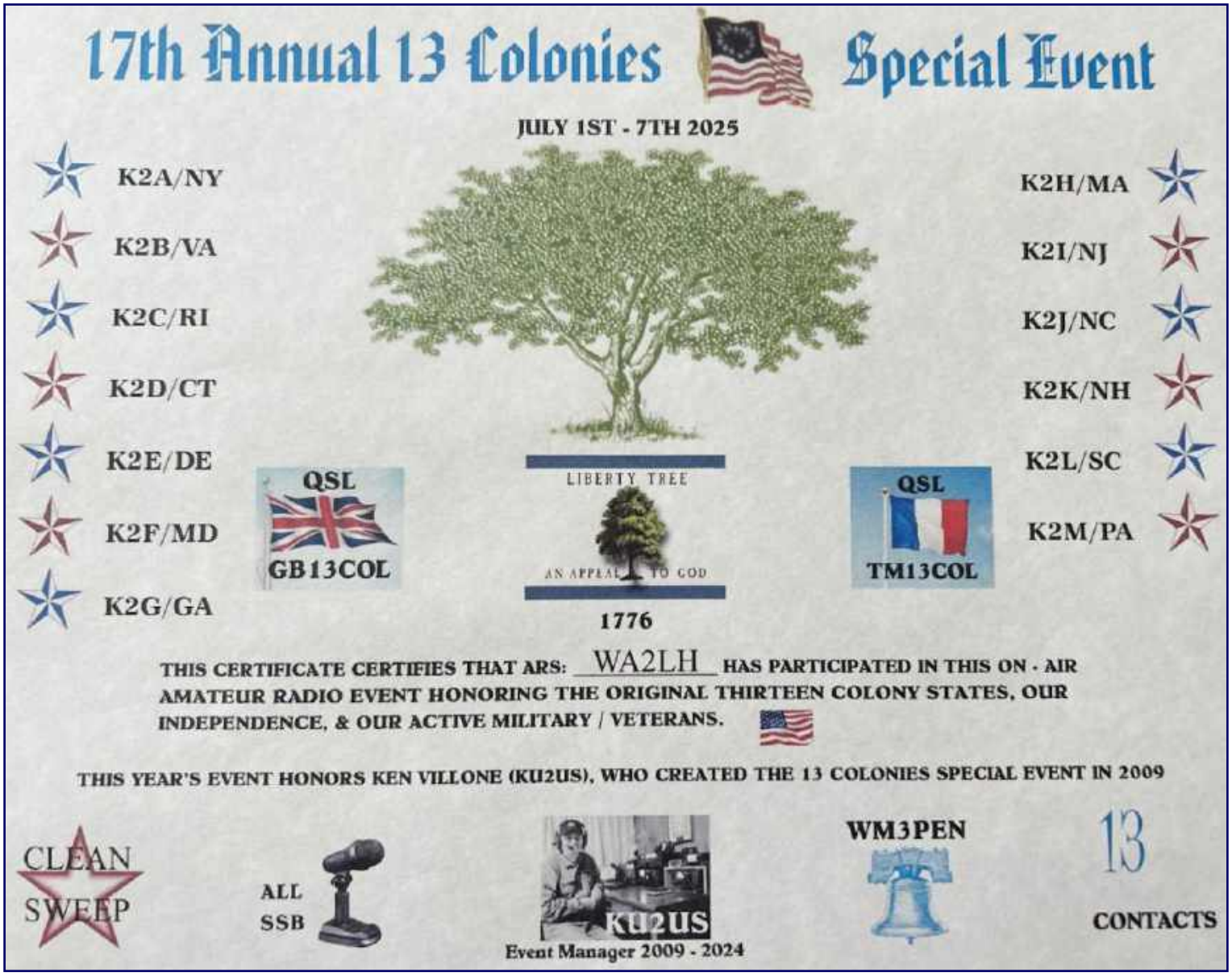
www.facebook.com/W2MMD

twitter.com/w2mmd_gcarc

Facebook

What's happening in the ARRL Southern New Jersey Section??

Subscribe to the ARRL SNJ Section Groups.IO
https://groups.io/g/ARRLSouthernNewJerseySection



Full Corn Moon : Sunday, September 7, 2025 @ 1409 Hours

Corn was ready to harvest at this time. In the 1760s, Captain Jonathan Carver came across this Native American term during his travels. Similarly, the Western Abenaki called this the Corn Maker Moon, and the Dakota, the Corn Harvest Moon. NOTE: Harvest Moon refers to the full Moon closest to the September equinox, which is the tradition that The Old Farmer's Almanac follows. Moon When Rice is Laid Up to Dry (Dakota) refers to the time of harvesting and processing rice. Autumn Moon (Cree), Falling Leaves Moon (Ojibwe), Leaves Turning Moon (Anishinaabe), Moon of Brown Leaves (Lakota), and Yellow Leaf Moon (Assiniboine) all speak to the leaf-changing season. Child Moon (Tlingit) occurs when young animals are weaned. Mating Moon and Rutting Moon are Cree terms that describe the time when certain animals, such as moose, are ready to mate. Old Farmer's Almanac - www.almanac.com

Old Farmer's Almanac - www.almanac.com

Bike MS City To Shore Ride 2025 - Update July 8, 2025

Greetings and Salutations to All,

First and Foremost - I would like give a very HEART FELT THANK YOU to all of the 2024 Ride volunteers. As always, the event can not be done without you, your dedication, and professionalism. It is an honor to be one of you.

Now some bad news, it seems that unfortunately, you are stuck with me for at least another year. Not so bad, you shouldn't have to endure the begging and pleading from prior years (but we will get into that at a later date).

There will definitely be changes this year from last, but hopefully they will be good changes, and most of you should be pleased.

One of the biggest changes is that we are expanding our SAG operations by probably at least an additional 5 SAGs. But these will be single SAGs of a SUV, but again, more details in the near future.

I bring this up, because a SAG position is a very challenging position. Attached to this email is our **2024 Event Communications Route Support.pdf** and **SAG Communicator 2024-07-25.pdf** from last year, which explains all positions. I ask that you read over the description of the SAG position, and kindly get back to us as soon as possible so that we can discuss the position and it's responsibilities if you are interested.

Sign up forms will be available very soon, and as soon as I have them, I will send out an email with the link.

I hope to see all of you from last year, and years gone by, but also I am excited to see the new folks coming out to the event.

I thank you all, I appreciate you all, and look forward to working with as many of you as possible this year.

With all my Respect,
Joe D (KC2SFB)
With Much Appreciation
EvComm
Msg. Phone: (609.795.0909)

Editor's Note : The 2 PDFs that Joe mentioned above can be downloaded from :
https://gloucestercountyarc.weebly.com/bike-ms.html

Bike MS : City To Shore Ride 2025
September 27 - 28, 2025

Bike MS : Bike To The Bay (Delaware) 2024
October 4, 2025

N3MSS Amateur Radio Communications
Bike MS Volunteers : www.n3mss.org

About From the Help Desk
HELPDESK@W2MMD.ORG

A new monthly feature of CrossTalk is the **From the Help Desk** column, to be penned by **Chris Prioli AD2CS**. The purpose of this column is to provide public answers to questions that have been asked, frequently at the Clubhouse where a one-on-one answer was most likely already given. However, due to the probable widespread interest in the topic, it may seem to be an appropriate topic for this feature.

If you have a question to which you would like a thorough answer to be provided and shared with the wider group, feel free to submit the question to ***helpdesk@w2mmd.org***. If selected for an answer, the question and answer will be published in an upcoming issue of CrossTalk as well as showing up on **www.ad2cs.com**.

We are kicking off the feature with a big question that takes a bit of a longer answer to do it justice. Rest assured, most of them will not be anywhere near as long as the kick-off.

Gloucester County Amateur Radio Club Elmers

We are always looking for some Club Elmers. If you would to add your name to the Elmer's List, send your specialty to w2mmdgcarc@gmail.com. Here is what we have so far :

- **Tony Starr K3TS : Antenna Construction; Contesting; CW Help and Training**
- **Ken Bozarth KN2U : Antennas**
- **Karl Frank W2KBF : Digital Messaging (FLDIGI, WinLink)**
- **Lenny Rust W2LJR : DMR Radios & Programming; VOIP; POTA; 3-D Printing**
- **Ron Block NR2B : Lightning Protection & Grounding**
- **Chris Prioli AD2CS : Kit Building; Antenna Building; Radio Programming; PC and Electronic Troubleshooting; Ham Radio Licensing & Studying; Local & Remote W2MMD HF Station Operation; Training & Support**
- **John Zaruba Jr K2ZA : Yaesu System Fusion Radio Programming; POTA; SOTA; CW Learning & Operating; 3-D Printing**
- **Jerry Barnish K2EAB : Radio Astronomy**
- **Mike Thompson KG4JYA : Radio Astronomy; VARA (HF and FM); WinLink**
- **Steve Farney W2SEF : WSJT-X; FT-8; LoTW; TQSL; Grid Square**
- **Gary Mirkin WA3SVW : FLDIGI; MMSSTV**
- **Jon Pearce WB2MNF : Satellite Communications; DMR; GD77; WPSD**
- **Frank Romeo N3PUU : Construction; Plumbing; Electrical; Fabrication; Jack-Of-All Trades**
- **Rich Subers W2RHS : 3-D Printing**
- **Dave Sheppard W2PAX : National Traffic System**
- **Bob Pantazes W2ARP : How To Properly Manage QSL Cards**

From the Help Desk – September 2025

By Chris Prioli AD2CS - HELPDESK@W2MMD.ORG

Note - This is the first of an ongoing series of related articles that will each take a look at some facet of radio selection, installation, or operation as suggested by actual questions received from Club members or other amateur operators. While this inaugural column is rather lengthy, most will not be anywhere near as long. The subject matter in play here is responsible for the length.

Q: I am getting ready for a road trip to Florida, and I want to put a radio in the car for the trip, and then possibly make it a permanent installation afterwards. What would you suggest in terms of equipment, installation, and the best way to program the radio?

A: I might suggest several different approaches here, depending upon just which bands you may want to have available in the car, whether or not you are bothered by drilling holes in the interior panels, and what is available as to antenna mounting and positioning. Let's take a look at some options, starting with the radio.

Several very compact radios are available. A good choice for a two-band set might be the TYT TH-8600 2m/70cm transceiver. This is the set that I have in my own POV for VHF/UHF use. The TH-8600 is a 25-watt miniature set capable of two-way comms on the 144-148 MHz and 420-450 MHz band segments. The radio is a mere 4.2" wide, 1.8" high, and 5.4" deep, weighing only about 3-1/2 pounds. While the faceplate is not removable, the radio is compact enough to fit in minimalistic spaces and is light enough that the strong interlocking strip fasteners can hold it to the dash if necessary. This radio has 200 memory channels and a dual VFO display. The microphone has a full numeric keypad, making control via the mic a snap. Programming is via a custom cable that plugs into a rear-panel data port and utilizes a USB connection to the PC. The antenna connection for a dual-band 2m/70cm antenna is via a single SO-239 socket on the radio rear panel. While antenna choices here are almost endless, I personally like and recommend the UAYESOK two-band dual-mast compact magnetic-base antenna, installed near the center of the vehicle roof if possible.

If instead a three-band radio is desired, a good choice might be the BTECH UV-25X4 tri-band transceiver. While I also own one of these units, I have not yet installed it. It too is a 25-watt unit (a 50-watt version, the UV-50X4, is also available, but is somewhat larger), operating on frequencies from 136 to 174 MHz, from 220 to 225 MHz, and from 400 to 520 MHz. Note that some of these ranges extend beyond the legal limits of the amateur bands in the USA. This unit is ***tiny!*** It measures only 3.85" wide by 1.83" high by 4.65" deep, and weighs an amazing 0.9 pounds. Its size and weight also lend themselves well to a Velcro®-type of temporary mount. While accessing all three available bands in this radio would require the use of a tri-band antenna, it can, of course, be utilized as a dual-band unit with a standard 2m/70cm antenna, connected via the SO-239 connector on the radio rear panel. A suitable antenna here might be the Nagoya TB-320A tri-band antenna, but other choices are available including the quad-band KT-7900 antenna that I purchased. Programming is via a standard Baofeng-type programming cable, which is then tied into the radio mic port via the specialized "Y" cable that ships with the radio.

Both of the above radios come in at just about $135 plus tax and shipping; the antennas mentioned are about $30 to $40 each. So, let's talk about the installation of these two units.

Because all else depends upon the location of the radio itself, that location must be selected at the outset. A typical location for a dash-mounted radio might be below and to the left of the steering wheel. Another popular choice is to mount the radio to the side of the center console, which often places the radio at ninety degrees to the viewer.

From The Help Desk - Continued on page 36

From The Help Desk - Continued from page 35

In many cases, most of the radio control is accomplished by way of the buttons on the mic, so all that is really necessary as far as the radio itself goes is to be able to see and read the front panel frequency display. Once the user has become familiar with the radio, actually needing to refer to the front panel is greatly reduced. However, if the radio has a ***"remote"*** type of removable face plate (front panel), the options become much broader. For example, the radio body can be installed underneath the driver's seat with the wire-connected face plate mounted to or on top of the dashboard or even on the steering column shroud.

Wherever (and however) you ultimately decide to install the radio body, it must be secured against free movement. This is important both to protect the radio ***and*** to protect the vehicle occupants in the event of a sudden stop or impact. As a driver, I certainly would not want a four-pound projectile accelerating towards my head during an emergency stop.

Protection of the radio revolves around keeping extraneous vibration and bouncing of the radio to a bare minimum. Most if not all modern radios are assembled using lead-free assembly methods, but there is a clear-cut reason why lead-free solder is not permitted in any mission critical equipment such as aircraft avionics, medical or healthcare appliances, and in most military applications. Lead solder joints simply will not remain intact over time, and motion or vibration can accelerate their failure, thus hastening the demise of the equipment. Do your part to help avoid such early failures by properly securing all radios in fixed locations. Your bank account will thank you later.

It is recommended that the radio chosen for vehicle installation be as small as possible while still providing the requisite features. For example, a typical dual-band 2m/70cm unit should provide at least the following features :

- Easily readable display with large numerals in a clean typeface
- Adjustable squelch control
- Full CTCSS access (50 discrete frequencies available)
- Simple programming method (non-complex or complicated), preferably via CHIRP
- A number of memory slots for storage of favorite frequencies, the more the better
- Compact size
- Integrated cooling fan
- Simplified switching between VFO and MEM modes
- At least 25 watts RF output on 2m and 20 watts RF output on 70cm bands
- Mic with capability to control the radio via buttons on the mic

Once you have selected a radio and determined how and where to mount it, it is time to move on to the antenna. You must choose an antenna mounting location that will give good performance while permitting the antenna to be securely mounted. I have had the Amazon-purchased UAYESOK dual-band antenna on my POV for almost four years now, with absolutely no problems. The magnetic base is strong, but is well padded to avoid damage to the vehicle. I have never knocked it off the roof despite its having hit low-hanging tree limbs on several occasions. Its installed position at the center of the roof provides the best possible ground plane, which in turn offers the most desirable radiation pattern.

Routing of the antenna cable is an area where some thought must be given. It is important to choose a cable path that will not cause chafing or cutting of the cable, while still maintaining the water-exclusion capability of the door seals through which the cable will probably need to pass. It is often possible to work the cable into the gap under the door seal, dressing it in such a manner that any drip lines formed will release their water load on the outside of the seal. Many modern vehicles have dual-lipped door seals. In such cases, place the cable so that it lies between the lips, routing it so that it follows the door frame down to a point where the cable can be brought inside the vehicle without compromising the seal's integrity.

From The Help Desk - Continued on page 37

From The Help Desk - Continued from page 36

Inside the vehicle, run the cable along and, if possible, under the carpet at the door sill, ultimately bringing it to the location of the radio.

Be sure to leave sufficient extra coaxial cable length near the radio to permit removal of the radio from its mount while still connected to the antenna. For example, it may at some point become necessary or desirable to set the radio on the seat while programming and testing it. Some radios have data ports that are very difficult to access without being able to actually see the rear panel of the radio. Some require the removal of a screw-retained cover in order to access the data port. The extra cable length can be stowed under the dashboard or under the seat, depending upon the installation location of the radio.

If it becomes necessary to drill any holes in order to accommodate the antenna coaxial cable feedline, be sure to drill the hole large enough for the cable connector to pass through. Then, afterwards, be prepared to seal the hole around the cable using a rubber grommet with a membrane in its center. A grommet such as the Keystone #778 is an ideal choice for this purpose. It has an OD of 1.125" and fits a 1" hole in panels up to 0.062" thick. The center membrane has an expandable 0.25" hole at its center, and fits cables up to 0.3125" in diameter. The seal is necessary to a) prevent chafing of the cable, b) to exclude dust, dirt, and water, and c) to support the cable where it passes through the panel.

Once the antenna cable has been routed and the antenna installed, it is time to move on to the power provision. Despite the fact that some radios are shipped with so-called cigar lighter plugs for the power connection, it is ***NEVER*** advisable to use such a connection for the radio power. On most if not all vehicles, the cigar lighter power capability is far beneath that required by the radio. Usually, the wiring to the cigar lighter socket is no more than about a 20AWG wire, certainly not adequate for the eight to ten amperes (or more) required by the radio during TX operation. The general rule of thumb for 20AWG stranded wire is 3.5A continuous duty. Remember that although the radio ***will*** receive OK with low current supplied, it will ***not*** transmit properly under those conditions, with different results depending upon the radio and the current available. The radio may simply shut down, or it may attempt to transmit to the best of its ability. Such transmissions can be full of spurious signals and distorted audio.

The recommended method of connecting power to the radio is to run the heavy-gauge twin-lead wire from the radio directly to the battery. At the battery, connection is made to each of the battery posts ***if the vehicle does not have an alternate auxiliary power connection scheme***. Many newer vehicles require that any such direct-power connections be made to a dedicated connection point designed and provided specifically for that purpose. Either way, it is necessary to fuse the wire leads as close to the source connection point as is possible. If the harness supplied by the radio manufacturer has a fuse in each lead (the positive and the negative), it is very important to maintain that methodology when making your power connections. On the other hand, if the radio manufacturer fused only the positive lead, it is acceptable to do the same when making your connections. In case it is necessary for some readers, I will mention that the standard color-coding of the power cable is red for positive and black for negative.

The reason that the two fuses are important if the manufacturer shipped the radio with two fuses is because some radios use both the positive and negative leads as incoming power lines, meaning that the black lead does not connect directly to the chassis of the radio, but is instead tied into some of the circuitry as a power supply feed. The purpose of mounting the fuses as close to the power source connection is so that the ***entire length*** of the power line will be protected against short circuits, potentially from chafing in the vehicle.

Once again, wherever the power lines feed through from the engine compartment (or other battery location) into the cabin of the vehicle, the power lines ***must*** be protected from chafing and the opening must be sealed as with the antenna cable.

From The Help Desk - Continued on page 38

From The Help Desk - Continued from page 37

Be sure to route the power lines in such a manner that there is no probability of burning on hot under-hood parts, no probability of pinching or chafing of the wires, and no interference with any moving parts under the hood. Also as with the antenna cable, allow for some extra wire length at the radio mounting location so that the radio can be removed from its mount while still connected to power.

If running the power lines to the battery is beyond your skill level, don't feel bad! I was a heavy-duty truck mechanic for many years, but I had a local garage run my power feed to the battery when I first installed my radio in the POV. That shop has a lift and can easily get to the area of the firewall where the wires needed to pass into the cabin. Many independent garages and most car audio shops will run these wires for you for a small fee, and it only takes a few minutes to do the job with the correct equipment available.

Once the power is available at the radio, it is time to make that connection. For this purpose, I fully endorse the use of ***Anderson Powerpole®*** connectors. You will need four connector bodies (two red and two black), and then you will need a total of four crimp-on terminals. The crimp-on terminals used for this purpose are available in three different sizes, rated for current and related to wire gauge. The 15A, 30A, and 45A crimp-on connectors all fit into the same connector bodies. Select two pairs of crimp-on connectors appropriate for the wire sizes involved here – the two attached to the radio and the two coming from the battery. Installing the crimp-on terminals to the wires and then into the connector body is a simple task with the proper equipment, but you may want to see the process demonstrated at least once so that you know how to do the job. The W2MMD Clubhouse has the connectors, terminals, and crimp tool all available at the test and repair bench. Don't forget to contribute to the replenishment kitty if you use Club supplies.

Anderson Powerpole® connectors are ***"gender-less"*** connectors, meaning that any body of a given size will mate with another body of that same size. This makes connecting to the radio quite simple. With an ***Anderson Powerpole®*** connector pair installed to the power wire coming from the battery and another set installed to the power leads on the radio itself, these two connector sets will simply plug into each other, observing the colors when making the connection.

With all of the connections to the radio made, all that is left is to program and test the radio. In many cases, the programming is easily handled with the ***CHIRP*** computer software package. Programming is a topic for another article, so I will not go into it in depth here. However, I will mention a few pertinent pointers about using ***CHIRP*** to program a radio :

- Be sure to update ***CHIRP*** to the most recent release so as to have the best possible list of radio definitions
- It may be necessary to use a radio definition other than the actual make and model of radio at hand, as the radio that you are programming may be a clone of a different and previously defined make and model
- Be sure to save all data files developed with ***CHIRP*** against future needs

If planning a road trip, you may want to use ***Repeater Book*** or some similar reference to identify all of the repeaters along your proposed route of travel. In that way, you can then program each of the repeaters identified, in route sequence, into an empty segment of the radio's memory range, making it easy to move from one repeater to another as you travel down the highway. On the return trip, the sequence will still work, except that it will be used in reverse order.

I hope that this information will be useful to anyone planning such an installation. While it is not intended to be a comprehensive, cover all the bases type of explanation, it should nevertheless help to get you started with the job.

Gloucester County Amateur Radio Club
General Membership Meeting Minutes
Wednesday, August 06, 2025

Meeting opened @ 1900 Hours by President Jon Pearce WB2MNF with the Pledge of Allegiance to the Flag

Attendance :

- **In-person : 32**
- **Via Zoom : 14**

Visitors :

- **Caryn Sternstein**
- **Frank Donovan W3LPL via ZOOM**

New Members :

- **Lance Appel KE2UC, Vineland, NJ**
- **Daniel Bates KE2GJA, Deptford, NJ**
- **William Bennett KE2GJG, Woodbury, NJ**
- **Steven Broomhead KB2RTZ, Turnersville, NJ**
- **Angel Papineau KD3BRI, Philadelphia, PA**
- **Neil Sternstein K2RCH, Deptford, NJ**

Announcements :

- CPR & First Aid Course instructed by **Josh Boylan KE2FSC** on October 5, 2025 at the Clubhouse
- **Jerry Barnish K2EAB** announced the VJ Day Commemoration at the Battleship NJ on August 9, 2025

Upcoming Clubhouse Events :

- **Tech Saturday 8/9 "TIDRADIO TD-H3 Firmware Upgrade and Checkout"**
- **Board of Director's Meeting 8/20**
- **License Testing 8/14**
- **Dinner at the Clubhouse 8/27**

Member current activities :

- **Jerry Barnish K2EAB** built a QFH antenna for weather satellite reception
- **Karl Frank W2KBF** talked about his recent tropospheric ducting experiences

Business Meeting :

- Minutes of July 2025 business meeting as published in CrossTalk were approved by voice vote of members present.

TREASURER'S REPORT :

- **2025 Year to Date Income and Expense**
  - **Income : $11,642.65**
  - **Expense : $8,281.74**
  - **Net : $3,360.91**

August 2025 General Membership Meeting Minutes - Continued on page 40

GLOUCESTER COUNTY AMATEUR RADIO FOUNDATION :

- Report : **John O'Connell K2QA** provided an update on the Foundation financials via Zoom.

CLUBHOUSE REPORT :

- Report : **Al Arrison KB2AYU** provided an update on tower and antenna work.

HAMFEST :

- Report : **Ron Block NR2B** discussed the latest developments with the HamFest.
- New e-mail address : **hamfest@w2mmd.org**

DX AND CONTESTS :

- Report : **Tony Starr K3TS** reported via Zoom on upcoming contests in August.

PUBLIC SERVICE :

- Report : **Bob Keogh KD2NEC** updated the status of the Red Cross Communications trailer project.

EDUCATION COMMITTEE :

- Report : **Jon Pearce WB2MNF** discussed activities of the Woodruff School STEM Club Summer Camp at the Clubhouse.

TECHNICAL COMMITTEE :

- Report : **Jon Pearce WB2MNF** reported on the most recent Tech Saturday "Tape Measure Yagi" build.
- **Frank Romeo N3PUU** discussed the current state of the Glassboro DMR repeater and GCARC talk group.
- **John Zaruba K2ZA** talked about the Lillygo T-Deck Meshtastic device (Open Source BlackBerry).

OLD BUSINESS :

- Previous General Membership Meeting minutes approved by voice vote of members present.
- Treasurers' report approved by voice vote of members present.

PRESENTATION : "HF Propagation" by Frank Donovan W3LPL

Meeting adjourned @ 1953 Hours

Respectfully submitted,
John Zaruba Jr K2ZA,
Recording Secretary

Do spiders know Morse Code?

This picture was recently captured from the front door camera of the Clubhouse.
It is a cobweb with water droplets on it.
The water droplets have mysteriously arranged themselves in a Morse Code pattern.

It looks like it's spelling out "NK"!

Gloucester County Amateur Radio Club
Board of Directors Meeting Minutes
Wednesday, August 20, 2025

Meeting opened @ 1900 Hours by President Jonathan Pearce WB2MNF

Attendance :

- **President Jon Pearce WB2MNF : Present**
- **Vice President Ron Block NR2B : Present**
- **Treasurer John O'Connell K2QA : Present**
- **Recording Secretary John Zaruba Jr K2ZA : Present**
- **Corresponding Secretary Mike Resnick N2WOQ : Present**
- **Director (2023-2025) Chris Prioli AD2CS : Present**
- **Director (2023-2025) James Wright N2GXJ : Present**
- **Director (2024-2026) Al Arrison KB2AYU : Present**
- Director (2024-2026) Bill Price NJ2S :
- **Director (2025-2027) Jeffrey Garth WB2ZBN : Present**
- Director (2025-2027) Frank Romeo N3PUU :
- Trustee (2022-2025) Charles Lanard KD2EIB :
- Trustee (2023-2026) Sheldon Parker K2MEN :
- Trustee (2024-2027) Len Rust W2LJR :
- **Trustee (2025-2028) Earl Moore KC2NCH : Present**
- **Member Karl Frank W2KBF : Present**

New Member Applications :

- **Matthew Bogacki KE2GNY, Technician Class from Mullica Hill, NJ**
- **Michael Cutrera N5MIT, Amateur Extra Class from Doylestown, PA**
- **Marian Yanka KE2GOL, Student Member, Technician Class from Moorestown, NJ**

Member Upgrade :

- **Craig Metzger KE2GNU, Newly licensed Technician Class from Vineland, NJ**

Treasurer's Report :

- **Income : $12,444.27**
- **Expense : $8,898.34**
- **Net : $3,545.93**

Detailed financial statements are available for member review upon request.

Committees :

Clubhouse :

- **Al Arrison KB2AYU** & **Jeff Garth WB2ZBN** reported a new groundhog has taken up residency at the Clubhouse.

Hamfest :

- **Ron Block NR2B** provided an update on hamfest preparations.

Technical :

- **Jon Pearce WB2MNF** reported on the TID Radio Tech Saturday.

August 2025 Board of Directors Meeting Minutes - Continued on page 42

August 2025 Board of Directors Meeting Minutes - Continued from page 41

Programs :

- **Ron Block NR2B** discussed upcoming GM meeting programs.

Education :

- **Jon Pearce WB2MNF** reported on the Woodruff School STEM Club Summer Camp results.
- **Chris Prioli AD2CS** discussed insufficient enrollment to run License classes this Fall.

Field Day :

- **Chris Prioli AD2CS** is building a band pass filter for 40 meters for next year.

Foundation :

- **John O'Connell K2QA** reported a $250 donation.

Foxhunt Report :

- **Jim Wright N2GXJ** discussed potential upcoming foxhunt dates.

Old Business :

- Motion to approve previous meeting minutes passed by voice vote of Club officers present.
- Motion to approve previous Treasurers' report passed by voice vote of Club officers present.
- **Jon Pearce WB2MNF** reported the upcoming CPR class.

New Business :

- **Chris Prioli AD2CS** submitted a document summarizing discussions with **Norman Coltri N2NRC** for performing an RF noise floor analysis prior to the solar field installation at the adjacent landfill site.
- **Jon Pearce WB2MNF** asked for candidates for the Volunteer Appreciation Award.
- **Chris Prioli AD2CS** discussed remote HF station 160/75m antenna issues.
- **Club Nets :**
  - ♦ 40 meter frequency : 7.170 MHz (+/- 5 or 10 kHz)
  - ♦ 2 meter nets : July 2025
    - ◊ Tuesday : Average 7.2 check ins
    - ◊ Thursday : Average 7.4 check ins

Meeting adjourned @ 2020 Hours

Respectfully Submitted,
John Zaruba Jr K2ZA
Recording Secretary

Tentative Class Schedule - GCARC Ham Exam Preparation Class Session X (Fall 2025)

Schedule is tentative, depending upon whether or not the classes are actually held. Any and all class meetings that are held will run from 1800 Hours to 2100 Hours on the scheduled evening. Exams will begin at 1900 Hours on the regularly-scheduled December 11, 2025 monthly exam session. All meetings and exams that occur will be held at the W2MMD Clubhouse.
Click this link to register for classes :**https://gloucestercountyarc.weebly.com/license-classes.html**

Element 2 - Technician		
Meeting	Date	Notes
1	15 September	First meeting
2	22 September	
3	29 September	
4	6 October	
5	13 October	
6	20 October	
7	27 October	
8	3 November	
9	10 November	
10	17 November	
11	24 November	
12	1 December	Overflow and/or review meeting
Exam	11 December	All exams are at monthly session.

Element 3 – General		
Meeting	Date	Notes
1	16 September	First meeting
2	23 September	
3	30 September	
4	7 October	
5	14 October	
6	21 October	
7	28 October	
8	4 November	
9	11 November	
10	18 November	
11	25 November	
12	2 December	Overflow and/or review meeting
Exam	11 December	All exams are at monthly session.

Tentative Class Schedule - Continued on page 44

Tentative Class Schedule - Continued from page 43

Element 4 - Amateur Extra		
Meeting	**Date**	**Notes**
1	19 September	First meeting
2	26 September	
3	3 October	
4	10 October	
5	17 October	
6	24 October	
7	31 October	
8	7 November	
9	14 November	
10	21 November	
11	28 November	
12	5 December	Overflow and/or review meeting
Exam	11 December	All exams are at monthly session.

Volunteer Monitor Program Report - June 2025

The Volunteer Monitor (VM) Program is a joint initiative between ARRL and the FCC to enhance compliance in the Amateur Radio Service. This is the June 2025 activity report of the VM Program.

- A Technician operator in Texas was issued an advisory concerning 40-meter FT8 operation. Another Technician operator in Texas was issued an advisory concerning 15-meter FT8 operation. On 40 and 15 meters, Technicians have only CW privileges.
- Technician operators in Louisiana, Missouri, and New Mexico were issued advisories for operating on 20-meter FT8, a band on which Technicians have no operating privileges.
- An operator in Virginia was issued an advisory for deliberate interference to a net on 7.248 MHz. The frequency was not in use when the net control began the roll call. Still, the operator began deliberately interfering because his net was to start sometime later, and he wanted the frequency clear. The FCC considers this operation to be deliberate interference, in violation of Section 97.101(d) of the Commission's rules. All frequencies in the Amateur Radio Service are shared, and no non-emergency net has greater rights than any other amateur operator.
- A commendation was issued to an operator in Texas for courtesy shown to a DX station on April 19, 2025. The operator was managing an AM net on 17 meters but changed frequencies at the request of the DX station.
- There was one FCC meeting.

The totals for May 2025 monitoring were 1,452 hours on HF frequencies, and 2,181 hours on VHF frequencies and above, for a total of 3,633 hours.

Thanks to Volunteer Monitor Program Administrator Riley Hollingsworth, K4ZDH

Promotional Special for Ham Exam Classes - Session 10 Update

By Chris Prioli AD2CS

Great news! For the next two sessions of the GCARC Ham Exam Preparation Classes, in celebration of our upcoming 10th session, we are offering a promotional incentive program in the hopes of enrolling some additional students for the sessions.

One of the stumbling blocks that seems to have cropped up lately is attrition in the student body during class sessions. In the last class session, all of the Element 2 (Technician) students had dropped out of the program before completing the job, and therefore did not earn a ham license. I am hoping that I can reverse that trend, and maybe even entice some additional students to sign up, in all Elements.

Towards that end, and for Session IX and Session X only (at this point), GCARC will reimburse the $15.00 test fee to any student exam candidate who successfully completes the training program and succeeds in passing the exam for the studied element in the first test sitting. The rules are as follows :

1. This promotion is valid only for Session IX (Spring 2025 session) and Session X (Fall 2025 session)
2. To qualify for the exam fee reimbursement, the student must
    A. Be present for at least eight of the ten classroom meetings
    B. Actively participate in the classroom training portion of the session
    C. Successfully pass the FCC exam for the Element studied in the class at the first formal attempt
3. This promotion applies to all Elements
4. Reimbursement is limited to one per individual student exam candidate per session
5. If a student exam candidate chooses to attempt multiple Elements during the same Session with testing events on different dates, only one of the exam fees will be reimbursed upon successful completion
6. If a student exam candidate taking an exam for a given Element passes that exam and then opts to attempt the next Element's exam during the same exam event, reimbursement will be made without regard to the outcome of the additional Element exam attempted
7. Reimbursement will be made via bank check issued by the GCARC Treasurer upon inclusion of the new license status in the FCC ULS database
8. Total reimbursement, which includes any reimbursement from other sources, will in no case exceed the maximum $15 fee charged for the exam
    A. In the event of a youthful candidate who receives the ten-dollar fee reimbursement from ARRL, the GCARC reimbursement will be limited to the five-dollar difference between the total exam fee and the ARRL reimbursement

For information regarding scheduled session dates, please refer to the License Classes page on the GCARC website **(https://gloucestercountyarc.weebly.com/license-classes.html)**, or in this issue of CrossTalk. Answers to any questions that may arise can be had via an e-mail to me at the email address on the GCARC roster.

September 18, 1947

Monday, September 22, 2025

Regional Skywarn Websites For On-Line And In-Person Training Classes

Philadelphia/Mt Holly Skywarn : www.weather.gov/phi/skywarn
State College, PA Skywarn : www.weather.gov/ctp/skywarn
Pittsburgh, PA Skywarn : www.weather.gov/pbz/skywarn

Mt Holly Skywarn Spotter In-Person Training Class

Thursday, September 4, 2025 @ 1800 Hours

Galloway Township Municipal Building, Council Chambers
300 East Jimmie Leeds Road, Galloway Township, NJ 08205

Please register at : https://docs.google.com/forms/d/e/1FAIpQLSfunModZBxyCj1kzi-jFVsX8E4709WYPvTRsHzbo9ja3zs7eQ/viewform

Weather Information Nets & Frequencies

Hurricane Watch Net : www.hwn.org

- **Day Time : 14.325 MHz**
- **Night Time : 7.268 MHz**
- **Information : 14.300 MHz**

Local SKYWARN Frequencies :

- **Atlantic County : K2BR, 146.745 MHz (-) 146.2 Hz**
  - ◊ **Net Every Monday @ 1900 Hours**
- **Camden County : K2EOC, 146.895 MHz (-) 91.5 Hz**
  - ◊ **Net Every Thursday @ 2030 Hours**
- **Cumberland County : KE2CK, 146.805 MHz, (-) 118.8 Hz**
  - ◊ **Net Every Monday @ 1930 Hours**
- **Gloucester County : W2MMD, 147.180 MHz (+) 131.8 Hz**
  - ◊ **Net Every Sunday @ 1930 Hours**
- **Salem County : N2KEJ, 146.625 MHz (-) 131.8 Hz**

What is a Skywarn Spotter?
By Jonathan Guseman KJ4ZWS, Warning Coordination Meteorologist
National Weather Service Central PA - https://www.weather.gov/skywarn

Spotters are our eyes/ears in the field! The NWS depends on our spotters to give us ground truth, therefore assisting in warning issuance and being heavily involved in reporting and documentation. As we issue warnings from inside of our offices, we greatly appreciate our spotters assisting us in the field and describing to us what is happening.

August 9, 2025 Tech Saturday Forum TIDRADIO TD-H3 Handheld Transceiver

We started out with a concept - as these things so often do. That concept was to take a low-cost HT and put it through its paces, watching for whatever might shake out. The radio chosen for this dubious honor was the ***TIDRADIO TD-H3***, a five-watt dual-band handheld transceiver.

The program was divided into two parts, one presented by ***Jon Pearce WB2MNF*** and the other by ***Chris Prioli AD2CS***. Jon spoke mainly to the radio's basic characteristic behaviors, particularly those aspects of the radio's personality that are defined or controlled by the firmware package that is currently installed to the radio. Chris, on the other hand, discussed those aspects of the radio's behavior that are defined or controlled by the specific combination of hardware devices selected for construction of the radio.

For those who may not know the specifics, ***firmware*** is a term that applies to the computer programming that is used to provide the operating instructions to the physical aspect of the device, which is then known as the ***hardware***. Some hardware needs no specific instructions to do its job - it has a limited range of capabilities and can only do certain tasks. A simple SPST switch for example can only turn "ON" or turn "OFF". Consider, however, a more complex device like a lamp dimmer. It needs ***inputs*** (how bright do we want the lights to be, and for how long do we want the lights to stay on) and it needs the ability to follow instructions and carry out the assigned tasks. That is where firmware comes in. The firmware contains the programming necessary to empower the device to carry out the commands that are given. Now, that is a vastly oversimplified example, but it gets the point across.

When it comes to the radio at hand, the firmware of course determines the operational capabilities of the programmable aspects of the radio's overall innate characteristics. For example, the firmware may determine not only if a given band is to be made available, but it might also control the specific frequency limitations of that band in operation. Let's get down to particulars.

This article is intended to be a summation of the Tech Saturday Forum event rather than a review of the TD-H3 radio. Nonetheless, it becomes necessary to do at least some description of the radio and its capabilities in order for some of the points discussed to have meaning.

Jon began by discussing some of the most relevant features of the TD-H3, including its various operating modes. A ***.PDF*** file containing his presentation's accompanying slideshow is available online at the ***W2MMD Skunk-Works*** website, at the following URL : **https://wp.w2mmd.org/wp/wp-content/uploads/2025/08/Introducing-the-TidRadio-H3.pdf**.

Jon discussed how to select an operating mode, and then he talked about the various programming options available for this radio. These options include standard ***CHIRP*** programming, direct OTA cloning from another radio, and Bluetooth programming.

The ***CHIRP*** programming can be done using either a standard Baofeng-type programming cable or a data-capable USB-C cable, inserted into the USB-C data port on the side of the radio. Bluetooth programming, available for both IOS and Android smart phones, is done via the ***ODMASTER*** app, available from the online app stores. While not specifically designed for such use, it is also possible to use ***ODMASTER*** to program the radio from a PC, running the app within a ***BlueStacks*** session. ***BlueStacks*** is an Android environment emulator package. It seems like overkill to do that, as ***CHIRP*** is free and is easier to work with, but there it is for those who like and want to stay with ***ODMASTER***.

TIDRADIO TD-H3 Handheld - Continued on page 48

TIDRADIO TD-H3 Handheld - Continued from page 47

Jon went on to talk about the display and the front panel features, and then he described a rather strange feature called the ***Breathe LED*** feature. ***Breathe LED***'s are mounted to the top of the radio, and serve the simple purpose of reminding the user that the radio power switch is in its ***"ON"*** position. This is intended as a battery life extending feature.

He went on to explain several other features and functions of the radio, including its scan functions, working with the TD-H3 menu system, manipulating the radio's memory channels, and the dual PTT capability. Jon spent some time discussing the finer points of this radio, and dealt with the wireless radio-to-radio cloning methodology.

A very interesting discussion of the radio firmware ensued, with Jon pointing out both the advantages and disadvantages of some of the aftermarket firmware options such as the ***nicSure*** firmware, including the issue of losing the ***CHIRP*** programming option if this firmware is installed.

The ***ODMASTER*** smart phone app was touched on, as previously mentioned. It is quite interesting that this software, while quite user-friendly once installed and configured, does not provide any simple means of identifying one radio from the many that may appear during the Bluetooth pairing period. The app reports the ***BT MAC*** addresses of the radios that are visible to the software, but there is apparently no easy way of identifying the MAC address of the specific radio with which you are attempting to pair. This shortcoming was readily seen when we had several Club members there at the Clubhouse with copies of the TD-H3 all powered on and the Bluetooth service started on the various radios. We ended up having to shut down the Bluetooth service on all of the radios except the one that was actively being paired in order to complete each pairing.

To wrap things up, Jon discussed the practice of utilizing ***Grok AI*** to create CSV files in the ***CHIRP*** format that can then be uploaded to the radio. This involves getting the correct information positioned in the proper order within the file, with all appropriate place holders intact so that the data will ultimately end up in the proper columns when brought into ***CHIRP***.

At that point, the discussion lead was turned over to Chris, who talked about various technical aspects of the TD-H3 radios. He began with a quick discussion of how to determine the production date of a given radio from the serial number on the label in the battery compartment. A ***.PDF*** form of his slideshow presentation can be found online at **https://ad2cs.com/prod/wp-content/uploads/2025/08/TIDRADIO-TD-H3.pdf** if you want to learn how to interpret the serial number.

Chris went on to talk about the user concerns about possible problems with the rapid-charge cradle for these radios. It seems that some users have experienced difficulties with the radio as regards transmitter output power after charging the radio in the cradle. In order to investigate this situation, Chris disassembled a charging cradle and drew a schematic diagram for its circuit, learning that the cradle was a dumb cradle capable only of passing current through to the battery under charge and controlling the illumination of the bi-color LED on the cradle to indicate charge status. This is done with a simple operational amplifier and a couple of resistors.

Deeper investigation showed that the battery contains the charge-control circuitry, and that in all probability, the actual defect that occurred was not in fact in the radio, but in the battery. It seems that the battery lost its ability to discharge at a sufficiently high enough rate to provide for driving of the final power amplifier transistor. Unfortunately, we were unable to either prove or disprove this theory because the failed radio had already been shipped back to the supplier. However, the most reasonable explanation is that the failure was in the battery itself, and that a simple battery replacement would likely have solved the problem.

TIDRADIO TD-H3 Handheld - Continued on page 49

TIDRADIO TD-H3 Handheld - Continued from page 48

Next up was the performance testing of the radio. In actuality, a total of three radios were tested for purposes of validating the test results across a selection of radios instead of relying on one single radio for the results. Specifically, Chris talked about testing the output power levels and the spectral purity and accuracy of these radios. The results were mixed.

For purposes of emulating real-world use cases for the radios, the spectral testing was done over the air (OTA) using the antenna provided with the radios. Two-meter VHF testing was done at 147.540 MHz (simplex), while seventy-centimeter UHF testing was done using a programmed repeater at 442.100 MHz, offset to 447.100 MHz.

The results showed that the radios, while sufficiently close enough to the advertised frequency to successfully maintain communications, were considerably outside of the 2.5ppm frequency tolerance specification published for the model. A frequency tolerance of 2.5ppm translates to a maximum frequency variance or error of 2.5 Hertz per megahertz of output signal. Thus, a VHF 147.540 MHz (147,540,000 Hz) signal, if it is compliant, should fall somewhere between 147,539,631.15 Hz and 147,540,368.85 Hz, a maximum variation of 368.85 Hertz. The typical output frequency for the two-meter test was 147.300 MHz… clearly off specification.

Similarly, the UHF 447.100 MHz (447,100,000 Hz) signal, to be compliant, must fall between 447,098,882.25 Hz and 447,101,117.75 Hz. In this test, the realized signal came in at 446.700 MHz, again clearly outside of the specified limits.

Harmonic testing showed that the actual harmonic frequencies were very close to the whole-number multiples that we would expect them to be, but again were not ***quite*** right… but close enough. What was ***not*** close enough, in some cases, was the harmonic attenuation.

Ordinarily, we look for each successive harmonic to be attenuated to some level that brings that signal's power to a value that is somewhat lower than its preceding harmonic (or the fundamental) frequency. While this was often the case, it occurred that both bands were transmitting harmonics that were actually stronger than the next-lower order harmonic. For example, on 70cm, while the second harmonic showed an attenuation of -19.8dB from the fundamental, the third harmonic came in at -12.4dB from the fundamental. In the same manner, the fourth harmonic was at fundamental less 33.6dB, but the fifth harmonic fell at fundamental less 33.1dB… but then the sixth harmonic was at -37.8dB from the fundamental. These attenuation values were clearly not what we would expect from an FCC type-approved radio, but then again, neither were the frequency tolerances what we would expect - until the cost of the radio is considered.

The spectrum analyzer screen captures are all available in the slideshow ***.PDF*** file cited above, for those who may be interested in seeing the SA graphs and their reported values.

Chris briefly discussed the three antennas that are packed with the TD-H3 radios. There is one labeled as a 144/430 MHz antenna, the second is marked as 120/300 MHz, and the third one is marked as 136-174 MHz and 400-470 MHz. The frequency spectral testing was done using the 144/430 MHz antenna, as it provided the best SWR match at the test frequencies used. However, SWR testing of all three antennas was performed, and those NanoVNA screen captures are also in his slideshow.

Finally, Chris reported on the output power testing, which was done on each of the two factory-firmware output power levels (low and high) and at the same VHF and UHF test frequencies as were previously used. Low-power results were 1.61W (VHF) and 1.75W (UHF), while the high-power tests produced 4.70W (VHF) and 5.03W (UHF). As far as output power is concerned, the radios are right where we would expect them to be.

TIDRADIO TD-H3 Handheld - Continued on page 50

TIDRADIO TD-H3 Handheld - Continued from page 49

After Chris completed his presentation, testing of individual Club members' radios was performed, looking at both the spectral purity and response and the output power levels. In almost every case, the frequency responses were right in line with the test results obtained and reported on previously. One radio showed frequencies that were quite divergent from the advertised value, to the point where replacement of the radio was recommended.

Power testing had similar results. One individual radio out of the dozen or so tested showed inadequate power output, never getting much above a half-watt at either power setting or on either band. That radio, too, was recommended for return and replacement.

All things considered, these little radios - and they are quite small physically - are about what one would expect from a twenty-dollar radio. They are good enough to get the job done, but no more than that.

The Tech Saturday Forum session was well attended, and it seemed that most if not all of the participants got something out of the experience. Almost all of the participants had brought radios with them, and some others had radios on order pending delivery. Interest and attention levels were quite high, and enough astute questions were asked (and answered) to show that the participants were truly involved in the Forum. It is for just this reason that we continue to host these sessions, and we will continue to do so.

Jersey String Band

By Glenn Dougherty N2YIO

August was a little slow! We did our last Ocean City NJ Boardwalk march on August 28th. We started at 6th Street and marched to 10th Street and met up with another band (don't know what band because as of this writing we haven't done the job yet).

We were supposed to meet with the arranger on Wednesday August 20th to get the rest of the music for our 2026 show but due to a conflict in schedule he couldn't meet with us but we should get the music very soon.

Friday, September 5th and Saturday, September 6th is the official start of what the Bands call Mum Season. On those dates all 14 string bands will be on Old New Jersey Avenue in Wildwood. The String Band Weekend in North Wildwood is on Friday Night. They will host a Mummers Strut Contest starting at 5PM and then on Saturday at the same time, they will host a String Band Parade.

Now our Fall Parade Schedule starts :

- **October 4 : Woodbury Fall Parade**
- **October 12 : Long Branch Columbus Day Parade**
- **October 18 : Williamstown Halloween Parade at 6PM**
- **October 25 : Alloway Parade at 6PM**

Don't forget the Jersey String Band Podcast on YouTube should have new shows on soon and the Philadelphia Mummers Association Sessions Podcast is also on YouTube which comes out every other Friday. Right now they are interviewing each band on how they are developing their themes for 2026 and how far they are along with the music. Its very interesting and you can get a lot of background information on the different bands.

Well that it for this month 73. Thanks again for letting me be part of this.

Another FREE Clubhouse Resource Available To All Club Members

Training May Be Required : See Jon Pearce, WB2MNF For Details

July 1, 2025 Yagi Building Class

To Be Added To The DX HONOR ROLL or Update Your Number, Please Contact
Ernest Kraus KD2EAV
meanddelcanotc@verizon.net

Monday, September 22, 2025 @ 1419 Hours

Name/Callsign	DXCC
Bill Grim W0MHK	352
Dave Strout W2YC	349
Edward De Fonzo W2DE	339
Darrell Neron AB2E	337
Bob Pantazes W2ARP	300
Gary Castellini N2IEC	288
Vinnie Sallustio N4NYY	275
Sheldon Parker K2MEN	272
John Hill W2HUV	271
Jim Wright N2GXJ	269
Ken Denson WB2P	248
Tony Starr K3TS	247
Dennis Sandole K2SE	231
Art Strong KA0WS	163
Eric Morris N2BRJ	161
Howard Marder WA2IBZ	158
Steve Farney W2SEF	147
Phil Nunzio WA3RGY	144
Rich Subers W2RHS	133
Ben Johnson NE2R	127
Bart Kleczynski AC2PT	124
Marc Federici WM2Y	117
Chuck Capasso WB2PGE	104
Harry Strahlendorf W3DNQ	103
Jim Clark KA2OSV	87
Lee Marino N2LAM	71
Updated As Of 08/19/2025	

Hmm...It's Saturday and you want to know if someone is at the Clubhouse? Why not call and find out! What!!!

W2MMD Clubhouse : 856-244-6914

Yes, We Do Have Prince Albert In A Can!

Electronic Tool Tip #15 - Handheld Frequency Counter

By Chris Prioli AD2CS - chris@ad2cs.com - www.ad2cs.com

This time around, I am making a departure from my usual type of Tool Tip. Usually, I talk about tools and repair aids. This time, I am going to talk about a handy piece of test equipment that makes verification of radio programming much simpler.

Often, when programming a radio, especially when programming a type with which the user is unfamiliar, it can be difficult to know whether or not the radio has been programmed properly. This is especially confusing when the radio in question cannot seem to be able to communicate successfully with a local repeater.

Very often, when such programming goes awry, it is because the programmed information is incorrect either as to the repeater frequency offset, the CTCSS tone, or both. When this happens, it can sometimes be difficult to actually see the error, for a number of reasons.

Many hams will set up their radios to display the repeater call sign rather than the frequency on-screen in the radio display. Of course, if the unit were set to display frequency, then the repeater offset is easily seen in the display. However, even in that situation, the CTCSS tone would still not be shown.

The **Latnex FC-2800M** handheld frequency counter solves this problem. This nice little unit will display the transmitted carrier frequency as well as any subaudible codes - both CTCSS and DCS - that are transmitted with the carrier. The FC-2800M covers all frequencies from 2MHz to 2800MHz in two selectable ranges, the first being 2MHz to 200MHz and the second covering 27MHz to 2.8GHz (2800MHz).

The unit is powered by an internal rechargeable 3.7V Li-ion battery, and is controlled in all aspects of its operation through the use of four front-panel pushbutton switches. Battery charging is accomplished via a USB port and cable to a 5V USB source. Of course, the unit incorporates a CTCSS/DCS decoder as well as a DMR frequency counter.

The front panel display shows incoming signal information including the existing noise floor and the incoming signal's relative strength above that noise floor, and a typical signal strength bar graph. Also displayed on the front panel are the two most recent (historical) frequency measurements.

This frequency counter is available online from Amazon, at a price of $69.00 (USD) plus shipping if you are not an Amazon Prime member. Of course, the government has to get its share, so tax will also be applied. Point your browser to **https://www.amazon.com/gp/product/B09F9XY63J** if you want to investigate this item for yourself.

Avoid Partial Calls

Thanks to Dan Zeitlin, K2YWE, and Contest University

When giving your call sign, always give your entire call. Partial calls will only cause stations to ask for more repeats. If they copy only part of your call, they'll ask you for a repeat.

September Birthdays

Congratulations To Our Members Who Are Celebrating A Birthday This Month

James Anderson N2DQG
James Bose KD2TAT
Kenneth Bozarth KN2U
Marylu Ciraula K3MLC
Misael Fernandez Jr KE2EBL
Harold Garron Jr AC2BK
Mark Gottlieb KK2L
Dale Guenther KE2CYM
John Hill W2HUV
Stephen Jordan KD2RGZ
Conor McCaffrey KD2KJX
William Price NJ2S
James Ricketts KC3TYH
Eugene Schoeberlein AA2YO
James Simeone KC2AOF
Phaon Robert Trexler III KB3ACE
William Wood KD2OSJ
Todd Woodward KD2ESH

In Memoriam : September Birthdays

Mark Anthony WA2WFZ
Earl Bende W2USG (Charter Member)
Frederick Bergmann WB2BPX
Harold Berry Sr WA2QOY
William Blakeley WA2ADB
William Burbage N2QEB
Wallace Cantoni W2HVW
Charles Coder WA2UHQ
Robert Derderian Jr N2IPH
Joseph Everhart N2CX
Sidney Gantz WB2JRU
Sonny Gutin WB2DXB
William Hansche Jr W2ILL
James Langworthy KB2PAU
John Layton W9UK (President 1965; Charter Member)
Jose Lopez Jr WB2OZE
Joseph Mitchell KB2FRN
Henry Nierzwicki N2OIP
Frank Ritter K2UUY
Samuel Rosenberg N2DWK
Jean Shisler N2WRJ
Horace Simpson W2JOZ (Charter Member)
Harry Spiece NJ2B
Russell Stafford W3CH
Melvyn Sulzburgh W2NM
Edward Wargo WA2ED

CrossTalk Submissions

This is your Club Magazine. Make use of it.

If you have stories or photos of your hobby that you would like to share with the Club, please do so! We will keep covering all of the GCARC events, but it is also nice to get those personal perspectives to include in every issue. Connecting through experiences is what makes the Gloucester County Amateur Radio Club a *REAL* Club.

All submissions, queries, comments, and editorials should be addressed to :
Jeff Garth WB2ZBN at djgrath1 <*at*> gmail <*dot*> com

Submission deadline for the October 2025 issue : Saturday, September 20, 2025

Club Website www.w2mmd.org
Club E-Mail Reflector : GCARC <*at*> Mailman <*dot*> QTH <*dot*> Net

OMARC The Ocean-Monmouth Amateur Radio Club

FALL HAMFEST

SATURDAY SEPTEMBER 6, 2025

7:30am - 1pm
(rain or shine)

Our New and Improved Location

The Spring Lake Heights Fire Company No. 1

700 Sixth Avenue
Spring Lake Heights, NJ 07762

(1 block from Spring Lake railroad station on the Bay Head NJ line)

Coordinates: +040.1494 -074.0369

Parking on Street

Vendors arrive at 7am
Outside Tables: $10
Tables under Pavilion: $15
Electric Available
Club Table
(with steep discounts)

Event Opens 7:30am
Admission Fee: $5
Kids 12 yrs and under FREE
Food & Drinks Available
DOOR PRIZES

VE Session – 10am in Meeting Room
VE Contact: Ken Brockel WA2FPB
908-309-3436 KHBROCKEL@verizon.net
FRN # from the FCC at www.FCC.GOV/FRNREG
Is required prior to registration.

Call in on 145.110, -600 CTCSS 127.3

For additional info call
Co-Chairman Joe Kruszewski KC2SVS
Cell: 732-618-5328 joekru1@hotmail.com

PLEASE VIEW WEBSITE www.N2M0.ORG for any COVID announcements

ARRL Field Day 2025
June 28, 2025

Call : NE2R
Operator (s) : NE2R
Station : NE2R

Class : 1D LP
QTH : SNJ
Operating Time (hrs) : 4.0

Summary :

Band	CW Qs	Ph Qs	Dig Qs
40 :	118	0	0
20 :	46	0	0
15 :	19	0	0
Total :	183	0	0

Total Score : 732

040

Club : Gloucester County Amateur Radio Club W2MMD

Comments :
Limited CW - Poor conditions, but it's all fun.

IARU HF World Championship 2025
July 12, 2025

Call : K3TS
Operator (s) : K3TS
Station : K3TS

Class : SOAB (A) Mixed HP
QTH : WPA
Operating Time (hrs) : 12
Location : USA

Summary :

Band	CW Qs	Ph Qs	Zones	HQ Mults
80 :	10	0	5	5
40 :	125	10	20	27
20 :	265	35	30	34
15 :	35	5	15	16
Total :	435	50	70	82

Total Score : 241,528

042

Club : Frankford Radio Club
Comments :
Poor band conditions and the threat of thunderstorms had me walking away from the radio repeatedly, but for some reason I kept coming back. I guess I miss a good contest. Was this a good contest? Maybe not, but for the middle of July, it was good enough. Thanks to all for the Q's, and see you in several weeks for NAQP, which is usually a good contest! 73 for now.

de K3TS

IARU HF World Championship 2025
July 12, 2025

Call : AB2E
Operator (s) : AB2E
Station : AB2E

Class : SOAB (A) Mixed HP
QTH : SNJ
Operating Time (hrs) : 11
Location : USA

Summary :

Band	CW Qs	Ph Qs	Zones	HQ Mults
160 :	3	0	1	1
80 :	101	11	16	26
40 :	212	33	21	35
20 :	316	39	29	35
15 :	38	2	14	8
Total :	670	85	81	105

Total Score : 436,170

Club : Frankford Radio Club **041**

Comments :
Rig : FTDX-9000D / OM Power 2000A+ amp, 1500W
Antennas : C3S tribander @ 52ft on AB-577 military mast.
40m Yagi - XM-240 @ 35ft (electric hoist failed, left it nested!)
80m - dipole @ 95ft
160m - inverted L over 100ft tree

Great fun, lousy band condx Sat morning when it started (K index at 4 !) Got better by Sat evening, and 40m and 80m really played well after dark. 10m gone, 15m opened. 11 hours op time in the chair.

Contest : IARU

Band	Mode	QSOs	Pts	ITU	HQ	Pt/Q
1.8	CW	3	3	1	1	1.0
3.5	CW	101	219	16	26	2.2
3.5	LSB	11	17	0	0	1.5
7	CW	212	584	17	31	2.8
7	LSB	33	79	4	4	2.4
14	CW	316	1,200	21	20	3.8
14	USB	39	105	8	15	2.7
21	CW	38	136	14	6	3.6
21	USB	2	2	0	2	1.0
Total	Both	755	2,345	81	105	3.1

Score : 436,170
1 Mult = 4.1 Q's

Announced DX Operations

www.ng3k.com/Misc/adxo.html

From The Shack of Bill Feidt NG3K : www.ng3k.com

2025 Sep01	2025 Sep27	**Rwanda**	**9X2AW**	LoTW	DXW.Net 20250713	By DF2WO fm Kigali (KI58aa); 160-6m, incl 60m; CW FT4 SSB; QSL via M0OXO OQRS
2025 Sep02	2025 Sep07	**Palau**	**T88DZ**	JR2JGR	OPDX 20250518	By JH2JGR fm Koror I (IOTA OC-009); 160-6m; CW SSB RTTY FT8 FT4 MSK
2025 Sep02	2025 Sep11	**Palau**	**T88DF**	LoTW	OPDX 20250518	By JH2DFJ fm Koror I (IOTA OC-009); 160-6m; CW SSB RTTY FT8 FT4 MSK; QSL via Club Log OQRS
2025 Sep04	2025 Sep08	**Iceland**	**TF**	NW1B	DXW.Net 20250808	By NW1B as TF/NW1B; 40-6m; SSB CW FT8; holiday style operation
2025 Sep11	2025 Sep26	**Guam**	**KH2** NEW	LoTW	DXW.Net 20250816	By WE9G as WE9G/KH2; 160-6m; QSL via Club Log OQRS
2025 Sep12	2025 Sep22	**Sint Maarten**	**PJ7K**	LoTW	DXW.Net 20250612	By OK1FCJ OK2ZA OK2ZC OK6DJ OM5ZW; 160-6m; CW FT8 SSB RTTY; QSL via Club Log OQRS or OK6DJ
2025 Sep12	2025 Sep22	**Svalbard**	**JW6VDA**	LoTW	OPDX 20241219	By LA6VDA fm Spitsbergen (IOTA EU-026); HF; FT8 FT4; SSB; holiday style operation; QSL via Club Log OQRS
2025 Sep13	2025 Sep25	**Dodecanese**	**SV5**	LoTW	TDDX 20250725	By HB9OAU as SV5/HB9OAU fm Karpathos I (IOTA EU-001, KM35ol); 40-6m; SSB CW; holiday style operation; QSL via HB9OAU direct
2025 Sep14	2025 Sep27	**Norfolk I**	**VK9NT** NEW	LoTW	DXW.Net 20250814	By VK3QB VK3HJ VK6CQ; 40-6m; CW FT8, some SSB; QSL via M0OXO
2025 Sep15	2025 Sep19	**Aland Is**	**OH0**	LoTW	OPDX 20250226	By DL4APJ DL2AQI as OH0/DL4APJ fm IOTA EU-002 (KP00ad); 80-10m; CW SSB + digital; QSL via Club Log OQRS or DL4APJ (B/d)
2025 Sep15	2025 Sep26	**St Pierre & Miquelon**	**FP5KE**	LoTW	DXW.Net 20250804	By 16 op team fm Ile aux Marins (IOTA NA-032), HF, CW SSB RTTY; QSL via Club Log OQRS; see Web for full QSL details
2025 Sep16	2025 Sep28	**Curacao**	**PJ2**	HA3JB OQRS	OPDX 20250728	By HA3JB as PJ2/HA3JB IOTA SA-099; 80-6m; CW SSB FT8; QRV for CQ DX RTTY Contest; QSL also OK via HA3JB direct
2025 Sep16	2025 Sep28	**St Kitts & Nevis**	**V4**	LoTW	TDDX 20250725	By K0YA as V4/K0YA and W5RCX as V4/W5RCX; @V47JA; CW SSB FT8; holiday style operation
2025 Sep19	2025 Oct03	**Christmas I**	**VK2**	LoTW	DXW.Net 20250726	By SP9FIH as VK9/SP9FIH fm IOTA OC-002 (OH29uo); 30-10m; SSB FT4 FT8
2025 Sep20	2025 Sep26	**Market Reef**	**OJ0** NEW	LoTW	OH6BG 20250816	By OH2YL as OJ0YL, OH6QU OH6QU OH6XX OH7CW as OJ0W; 160-6m; CW FT8 SSB; QSL via Club Log OQRS
2025 Sep20	2025 Sep28	**Reunion**	**FR** NEW	F1TEQ	OPDX 20250818	By
2025 Sep22	2025 Oct06	**Micronesia**	**V6D**	LoTW	DXW.Net 20250415	By DG2RON DJ7TO DJ9KH DK5WL DL1KWK DL2RNS DL4SVA DL7JOM DL7VEE fm Chuuk I (IOTA OC-011, QJ57wl); 160-6m; CW SSB FT8 RTTY; QSL via Club Log OQRS or DL4SVA
2025 Sep24	2025 Sep28	**Svalbard**	**JW0B**	LoTW	DXW.Net 20250409	By F5FRM fm Longyearbyen; focus on high bands, perhaps 6m; CW RTTY, perhaps SSB; QRV for CQ WW DX RTTY
2025 Sep27	2025 Oct02	**Ogasawara**	**JD1**	LoTW	TDDX 20250610	By JQ3JUK as JQ3JUK/JD1 fm Chichijima I; 160-6m; FT8; 50w; QSL via JQ3JUK direct w/ SAE + 3USD
2025 Sep28	2025 Oct12	**Seychelles**	**S79**	LoTW	DXW.Net 20250315	By DL2SBY; HF; focus on 6m; QSL via DL2SBY direct
2025 Sep29	2025 Oct10	**Uganda**	**5X2I**	HA5AO	TDDX 20250731	By HA5AO; 80-6m; CW SSB FT8

Also for your convenience, there is a direct link to NG3K on our website. Click on the NG3K DX Page.

September 2025 Contest Calendar - WA7BNM Contest Calendar : www.contestcalendar.com

K1USN Slow Speed Test	0000Z-0100Z, Sep 1
ICWC Medium Speed Test	1300Z-1400Z, Sep 1
OK1WC Memorial (MWC)	1630Z-1729Z, Sep 1
ICWC Medium Speed Test	1900Z-2000Z, Sep 1
RSGB 80m Autumn Series, SSB	1900Z-2030Z, Sep 1
MI QRP Labor Day CW Sprint	2300Z, Sep 1 to 0300Z, Sep 2
ARS Spartan Sprint	0000Z-0200Z, Sep 2
Worldwide Sideband Activity Contest	0100Z-0159Z, Sep 2
ICWC Medium Speed Test	0300Z-0400Z, Sep 2
Phone Weekly Test	0230Z-0300Z, Sep 3
A1Club AWT	1145Z-1300Z, Sep 3
CWops Test (CWT)	1300Z-1400Z, Sep 3
Mini-Test 40	1700Z-1759Z, Sep 3
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Sep 3
Mini-Test 80	1800Z-1859Z, Sep 3
CWops Test (CWT)	1900Z-2000Z, Sep 3
UKEICC 80m Contest	2000Z-2100Z, Sep 3
Walk for the Bacon QRP Contest	0000Z-0100Z, Sep 4 and 0200Z-0300Z, Sep 5
CWops Test (CWT)	0300Z-0400Z, Sep 4
CWops Test (CWT)	0700Z-0800Z, Sep 4
NRAU 10m Activity Contest	1800Z-1900Z, Sep 4 (CW) and 1900Z-2000Z, Sep 4 (SSB) and 2000Z-2100Z, Sep 4 (FM) and 2100Z-2200Z, Sep 4 (Dig)
SKCC Sprint Europe	1900Z-2100Z, Sep 4
NCCC FT4 Sprint	0100Z-0130Z, Sep 5
Weekly RTTY Test	0145Z-0215Z, Sep 5
NCCC Sprint Ladder	0230Z-0300Z, Sep 5
K1USN Slow Speed Test	2000Z-2100Z, Sep 5
CWOps CW Open	0000Z-0359Z, Sep 6
All Asian DX Contest, Phone	0000Z, Sep 6 to 2400Z, Sep 7
Wake-Up! QRP Sprint	0600Z-0629Z, Sep 6 and 0630Z-0659Z, Sep 6 and 0700Z-0729Z, Sep 6 and 0730Z-0800Z, Sep 6
SARL Field Day Contest	0800Z, Sep 6 to 1000Z, Sep 7
SARL VHF/UHF FM Contest	0800Z, Sep 6 to 1000Z, Sep 7
CWOps CW Open	1200Z-1559Z, Sep 6
Russian RTTY WW Contest	1200Z, Sep 6 to 1159Z, Sep 7
AGCW Straight Key Party	1300Z-1600Z, Sep 6
RSGB SSB Field Day	1300Z, Sep 6 to 1300Z, Sep 7
IARU Region 1 Field Day, SSB	1300Z, Sep 6 to 1259Z, Sep 7
IARU Region 1 145 MHz Contest	1400Z, Sep 6 to 1400Z, Sep 7
Ohio State Parks on the Air	1400Z-2200Z, Sep 6
CWOps CW Open	2000Z-2359Z, Sep 6
PODXS 070 Club Jay Hudak Memorial 80m Sprint	2000Z, Sep 6 to 2000Z, Sep 7
WAB 144 MHz Phone	1000Z-1400Z, Sep 7
Tennessee QSO Party	1700Z, Sep 7 to 0300Z, Sep 8
K1USN Slow Speed Test	0000Z-0100Z, Sep 8
ICWC Medium Speed Test	1300Z-1400Z, Sep 8
OK1WC Memorial (MWC)	1630Z-1729Z, Sep 8
ICWC Medium Speed Test	1900Z-2000Z, Sep 8
Worldwide Sideband Activity Contest	0100Z-0159Z, Sep 9
ICWC Medium Speed Test	0300Z-0400Z, Sep 9
DARC CW-Training Contest	1800Z-1859Z, Sep 9
Phone Weekly Test	0230Z-0300Z, Sep 10
A1Club AWT	1145Z-1300Z, Sep 10
CWops Test (CWT)	1300Z-1400Z, Sep 10
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Sep 10
Mini-Test 40	1700Z-1759Z, Sep 10
Mini-Test 80	1800Z-1859Z, Sep 10
CWops Test (CWT)	1900Z-2000Z, Sep 10
RSGB 80m Autumn Series, CW	1900Z-2030Z, Sep 10
CWops Test (CWT)	0300Z-0400Z, Sep 11
CWops Test (CWT)	0700Z-0800Z, Sep 11
NCCC FT4 Sprint	0100Z-0130Z, Sep 12
Weekly RTTY Test	0145Z-0215Z, Sep 12
NCCC Sprint Ladder	0230Z-0300Z, Sep 12
K1USN SST Open	2000Z-2359Z, Sep 12
K1USN Slow Speed Test	2000Z-2100Z, Sep 12
WAE DX Contest, SSB	0000Z, Sep 13 to 2359Z, Sep 14
ARRL EME Contest	0000Z, Sep 13 to 2359Z, Sep 14
SKCC Weekend Sprintathon	1200Z, Sep 13 to 2400Z, Sep 14
Africa FT4 DX Contest	1500Z-1800Z, Sep 13
ARRL September VHF Contest	1800Z, Sep 13 to 0300Z, Sep 15
North American Sprint, CW	0000Z-0400Z, Sep 14
IRTS 70cm Counties Contest	1300Z-1330Z, Sep 14
IRTS 2m Counties Contest	1330Z-1500Z, Sep 14
K1USN Slow Speed Test	0000Z-0100Z, Sep 15
4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Sep 15
ICWC Medium Speed Test	1300Z-1400Z, Sep 15
OK1WC Memorial (MWC)	1630Z-1729Z, Sep 15

September 2025 Contest Calendar - Continued on page 59

September 2025 Contest Calendar - Continued from page 58

RSGB FT4 Contest	1900Z-2100Z, Sep 15
ICWC Medium Speed Test	1900Z-2000Z, Sep 15
Worldwide Sideband Activity Contest	0100Z-0159Z, Sep 16
ICWC Medium Speed Test	0300Z-0400Z, Sep 16
Phone Weekly Test	0230Z-0300Z, Sep 17
A1Club AWT	1145Z-1300Z, Sep 17
CWops Test (CWT)	1300Z-1400Z, Sep 17
Mini-Test 40	1700Z-1759Z, Sep 17
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Sep 17
Mini-Test 80	1800Z-1859Z, Sep 17
CWops Test (CWT)	1900Z-2000Z, Sep 17
Walk for the Bacon QRP Contest	0000Z-0100Z, Sep 18 and 0200Z-0300Z, Sep 19
NAQCC CW Sprint	0030Z-0230Z, Sep 18
CWops Test (CWT)	0300Z-0400Z, Sep 18
CWops Test (CWT)	0700Z-0800Z, Sep 18
BCC QSO Party	1800Z-1959Z, Sep 18
NTC QSO Party	1900Z-2000Z, Sep 18
NCCC FT4 Sprint	0100Z-0130Z, Sep 19
Weekly RTTY Test	0145Z-0215Z, Sep 19
NCCC Sprint	0230Z-0300Z, Sep 19
AGB NEMIGA Contest	1600Z-1700Z, Sep 19
K1USN Slow Speed Test	2000Z-2100Z, Sep 19
ARRL 10 GHz and Up Contest	0900Z, Sep 20 to 0759Z, Sep 22
Scandinavian Activity Contest, CW	1200Z, Sep 20 to 1200Z, Sep 21
Iowa QSO Party	1400Z, Sep 20 to 0200Z, Sep 21
New Jersey QSO Party	1400Z, Sep 20 to 0159Z, Sep 21
Texas QSO Party	1400Z, Sep 20 to 0200Z, Sep 21 and 1400Z-2000Z, Sep 21
QRP Afield	1500Z-2100Z, Sep 20
Wisconsin Parks on the Air	1600Z-2300Z, Sep 20
Washington State Salmon Run	1600Z, Sep 20 to 0700Z, Sep 21 and 1600Z-2400Z, Sep 21
New Hampshire QSO Party	1600Z, Sep 20 to 0400Z, Sep 21 and 1200Z-2200Z, Sep 21
Feld Hell Sprint	1800Z-1959Z, Sep 20
North American Sprint, RTTY	0000Z-0400Z, Sep 21
ARS Flight of the Bumblebees	1700Z-2100Z, Sep 21
BARTG Sprint PSK63 Contest	1700Z-2059Z, Sep 21
Run for the Bacon QRP Contest	2300Z, Sep 21 to 0100Z, Sep 22
K1USN Slow Speed Test	0000Z-0100Z, Sep 22
ICWC Medium Speed Test	1300Z-1400Z, Sep 22
OK1WC Memorial (MWC)	1630Z-1729Z, Sep 22
ICWC Medium Speed Test	1900Z-2000Z, Sep 22
144 MHz Fall Sprint	2300Z, Sep 22 to 0600Z, Sep 23
Worldwide Sideband Activity Contest	0100Z-0159Z, Sep 23
ICWC Medium Speed Test	0300Z-0400Z, Sep 23
SKCC Sprint	0000Z-0200Z, Sep 24
Phone Weekly Test	0230Z-0300Z, Sep 24
A1Club AWT	1145Z-1300Z, Sep 24
CWops Test (CWT)	1300Z-1400Z, Sep 24
Mini-Test 40	1700Z-1759Z, Sep 24
Mini-Test 80	1800Z-1859Z, Sep 24
CWops Test (CWT)	1900Z-2000Z, Sep 24
UKEICC 80m Contest	2000Z-2100Z, Sep 24
CWops Test (CWT)	0300Z-0400Z, Sep 25
CWops Test (CWT)	0700Z-0800Z, Sep 25
RSGB 80m Autumn Series, Data	1900Z-2030Z, Sep 25
NCCC FT4 Sprint	0100Z-0130Z, Sep 26
Weekly RTTY Test	0145Z-0215Z, Sep 26
NCCC Sprint	0230Z-0300Z, Sep 26
K1USN Slow Speed Test	2000Z-2100Z, Sep 26
Bill Windle QSO Party	0000Z-2359Z, Sep 27
CQ Worldwide DX Contest, RTTY	0000Z, Sep 27 to 2400Z, Sep 28
Maine QSO Party	1200Z, Sep 27 to 1200Z, Sep 28
YU DX Contest	1200Z, Sep 27 to 1159Z, Sep 28
Masonic Lodges on the Air	1400Z-2200Z, Sep 27
AGCW VHF/UHF Contest	1400Z-1700Z, Sep 27 (144) and 1700Z-1800Z, Sep 27 (432)
AWA Amplitude Modulation QSO Party	2000Z, Sep 27 to 2400Z, Sep 28
UBA ON Contest, 6m	0700Z-1000Z, Sep 28
K1USN Slow Speed Test	0000Z-0100Z, Sep 29
QCX Challenge	1300Z-1400Z, Sep 29
ICWC Medium Speed Test	1300Z-1400Z, Sep 29
OK1WC Memorial (MWC)	1630Z-1729Z, Sep 29
ICWC Medium Speed Test	1900Z-2000Z, Sep 29
QCX Challenge	1900Z-2000Z, Sep 29
Worldwide Sideband Activity Contest	0100Z-0159Z, Sep 30
ICWC Medium Speed Test	0300Z-0400Z, Sep 30
QCX Challenge	0300Z-0400Z, Sep 30
222 MHz Fall Sprint	2300Z, Sep 30 to 0600Z, Oct 1

The W2MMD Repeaters

2 Meter Repeater
Output : 147.180 MHz
Input : 147.780 MHz
Offset : +600 kHz - PL : 131.8 Hz
(Conventional FM plus C4FM Capability)
EchoLink : W2MMD-R

70 cm Repeater
Output : 442.100 MHz
Input : 447.100 MHz
Offset : +5 MHz - PL : 131.8 Hz
(Conventional FM plus C4FM Capability)

The above repeaters are both
located in Pitman, NJ
GPS : 39.728481°, -75.131088°

1.25 Meter Repeater
Output : 224.660 MHz
Input : 223.060 MHz
Offset : -1.6 MHz - PL : 131.8 Hz
Location : Sewell, NJ
GPS : 39.746738°, -75.077094°

SKYWARN™ Net
Sunday @ 1930 : 147.180 MHz Repeater

Gloucester County ARES Net
Sunday @ 2000 : 147.180 MHz Repeater

GCARC TechNet ZOOM Forum
Available Every Monday @ 1930 Hours
Join ZOOM Meeting Link :
https://bit.ly/3K8bWwj

Tuesday AfterNoon 2M Net @ 1200 Hours

Monday & Thursday Night 40M Net
1930 Hours
7.170 MHz (Plus or Minus 5 or 10 kHz)

Thursday 2M Net @ 2000 Hours

All 2 Meter Nets Are Also On EchoLink :
W2MMD-R

Meeting Calendar

General Membership Meeting
Wednesday, September 03, 2025
1900 Hours
Pfeiffer Community Center
Simulcast Live on ZOOM
Meeting ID : 914 7364 1808
Passcode : 843147
Join ZOOM Meeting Link :
https://bit.ly/3Pt4dLO

Board of Directors Meeting
Wednesday, September 17, 2025
1900 Hours
W2MMD Clubhouse

"Ask not what your Club can do for you, Ask what you can do for your Club"
- KA2OSV

"There's More To Ham Radio Than You Can Possibly Do!"
- K3TS

*** Badges ***

Need a new or replacement badge
Contact "*The Badge Man*"

Chris Prioli AD2CS
chris@ad2cs.com

Question Pool Answers : E4A01:A; E4A02:B; E4A03:B; E4A04:A; E4A05:D; E4A06:A; E4A07:B; E4A08:D; E4A09:A; E4A10:D; E4A11:D